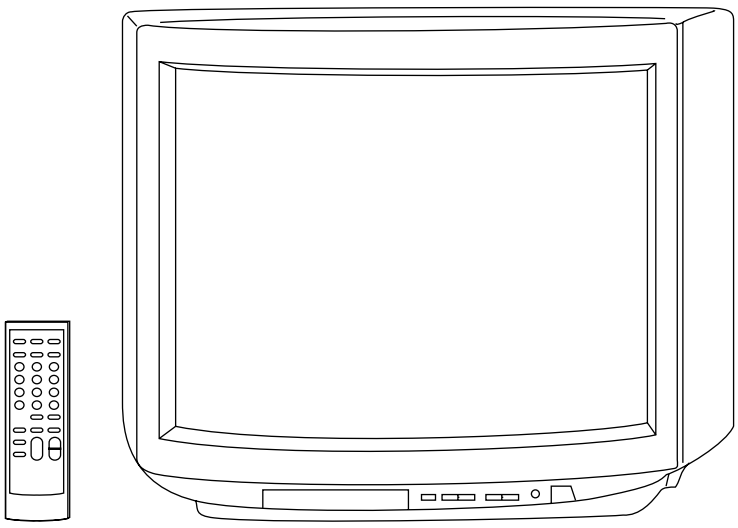
SERVICE MANUAL

BG-1L CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-J25MF8J	RM-873	ME	SCC-K57P-A

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-J29MF8J	RM-873	ME	SCC-K57N-A



MICROFILM

TRINITRON ® COLOR TV

SONY ®

SPECIFICATIONS

	KV-J25MF8J	KV-J29MF8J	Note
Power requirements	110-240 V AC, 50/60 Hz		
Power consumption (W)	Indicated on the rear of the TV		
Television system	B/G, I, D/K, M		
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58		
Channel coverage			
B/G	VHF: E2 to E12 / UHF: E21 to E69 / CATV: S01 to S03, S1 to S41		
I	UHF: B21 to B68 / CATV: S01 to S03, S1 to S41		
D/K	VHF: C1 to C12, R1 to R12 / UHF: C13 to C57, R21 to R60 CATV: Z1 to Z39, S01 to S03, S1 to S41		
M	VHF: A2 to A13 / UHF: A14 to A79 / CATV: A-8 to A-2, A to W+4, W+6 to W+84		
Antenna	75-ohm external terminal		
Audio output (speaker)	6W + 6W		
Number of terminal			
Video	Input: 3 Output:1		Phono jacks; 1 Vp-p, 75 ohms
Audio	Input: 3 Output: 1		Phono jacks; 500 mVrms
S Video	Input: 1		Y : 1 Vp-p, 75 ohms, unbalanced, sync negative C : 0.286 Vp-p, 75 ohms
Headphone	Output: 1		Minijack
Picture tube	Super Trinitron (25 in.)	Super Trinitron Plus (29 in.)	
Tube size (cm)	64	72	Measured diagonally
Screen size (cm)	60	68	Measured diagonally
Dimension (w/h/d, mm)	712 × 521 × 520	780 × 577 × 542	
Mass (kg)	33	43	
Accessory (optional)	TV stand (SU-25H)	TV stand (SU-29H)	

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1
GENERAL

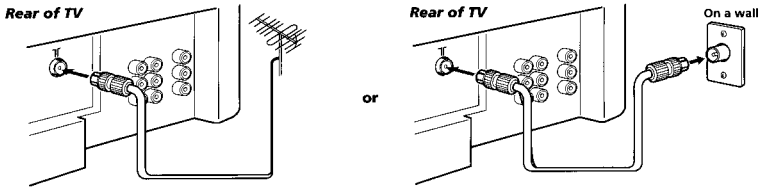
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Getting Started

Connections

Connecting a VHF antenna or a combination VHF/UHF antenna — 75-ohm coaxial cable (round)

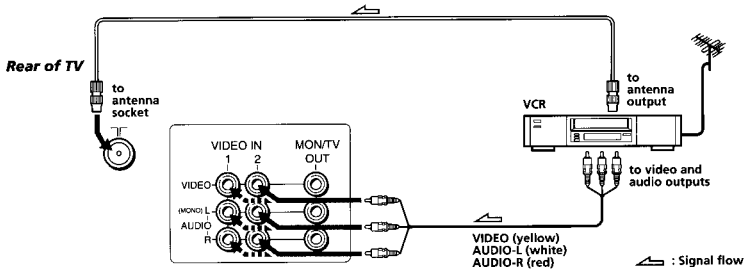
Attach an optional IEC antenna connector to the 75-ohm coaxial cable.
Plug the connector into the ╥ (antenna) socket at the rear of the TV.

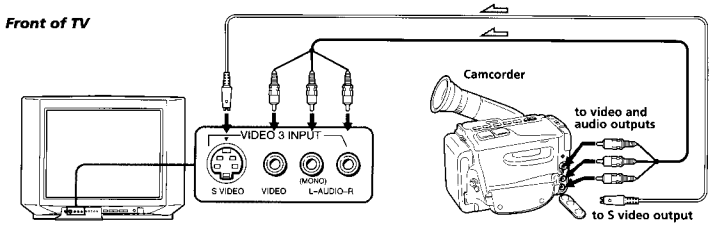


Connecting optional equipment

You can connect optional audio/video equipment to your TV such as a VCR, multi disc player, camcorder, video game, or stereo system.

Connecting video equipment using video input jacks





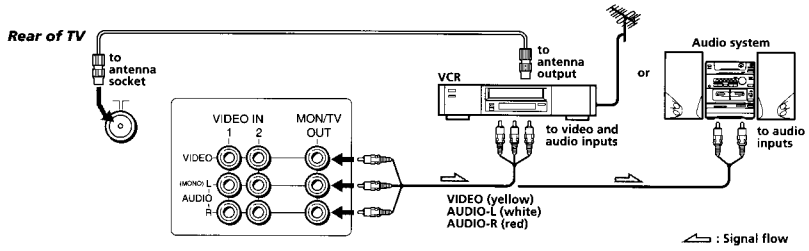
When connecting a monaural VCR
Connect the yellow plug to VIDEO and the black plug to AUDIO-L (MONO).

When connecting a VCR to the ╥ (antenna) terminal
Preset the signal output from the VCR to the program position 0.

If both S Video and video signals are input simultaneously
The S Video input signal is selected. To view a video input signal, disconnect the S Video connection.

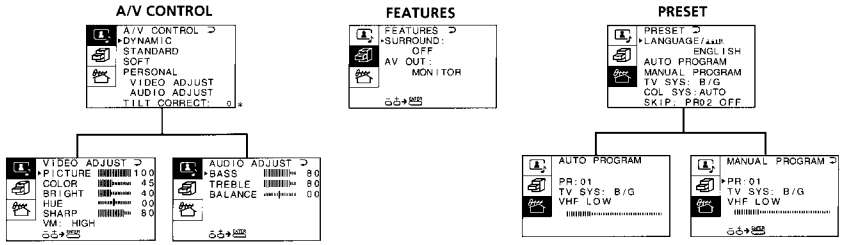
Note on the video input
When no signal is input, the screen becomes blue.

Connecting audio/video equipment using MON/TV OUT jacks



Introducing the menus

You can preset TV channels, adjust the picture and sound qualities, and select some settings using the on-screen menus. You can use the buttons on both the remote commander and the TV to operate the menus.



(+KV-J29MF8J only)

Getting back to the previous menu (except for AUTO PROGRAM)

Press + or – to move the cursor (▶) to the first line (↩) of each menu, and press ENTER.

Cancelling the menu screen

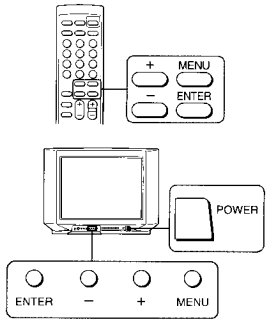
Press MENU.

Notes (except for AUTO PROGRAM)

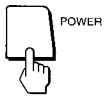
- When a menu is selected after pressing ENTER, the color of both the menu and the menu symbol change and the cursor (▶) appears beside the first item of the menu.
- When an item on the menu is selected after pressing ENTER, the color of the item changes.
- You can refer to the guide (↕→ENTER) at the bottom of the menus (except for the A/V CONTROL and PRESET menus) for the basic operations of the menu.
- If more than approximately 60 seconds elapse after you press a button, the menu screen disappears automatically.

Changing the menu language

If you prefer Arabic to English, you can change the menu language. You can use buttons on the remote commander or the TV.

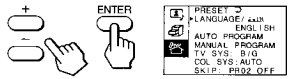


1 Press POWER to turn on the TV.



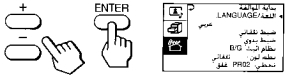
2 Press MENU.

3 Press + or – to move the cursor (▶) to the PRESET menu (🎛), and press ENTER.



4 Make sure the cursor (▶) appears beside LANGUAGE/اللغة, and press ENTER.

5 Press + or – to select عربي, and press ENTER.



All of the menus change to Arabic.

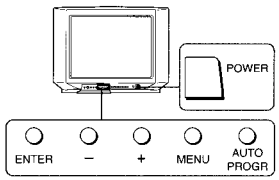
6 Press MENU to return to the normal screen.

Presetting channels

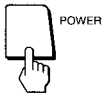
You can preset TV channels easily by storing all the receivable channels automatically. You can also preset channels manually or disable program positions (see page 11).

Presetting channels automatically

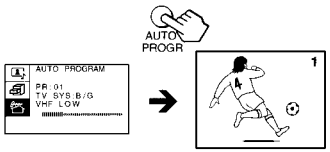
You can preset up to 100 TV channels in numerical sequence from the program position 1. You can preset channels automatically using the button on the TV or the menu.



1 Press POWER to turn on the TV.



2 Press AUTO PROGR.



The TV starts scanning and presetting channels automatically. When all of the receivable channels are stored, the first preset TV program appears on the screen.

To preset channels automatically using the menu

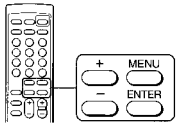
1 Press MENU.

2 Press + or – to move the cursor (▶) to the PRESET menu ( ), and press ENTER.

3 Press + or – to move the cursor (▶) to AUTO PROGRAM, and press ENTER.

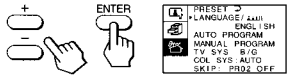
Presetting channels manually

To change the program position for a channel or to receive a channel with a weak signal which you cannot receive by automatic presetting, preset the channel manually.



1 Press MENU.

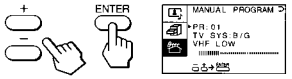
2 Press + or – to move the cursor (▶) to the PRESET menu ( ), and press ENTER.



3 Select your local TV system.

(1) Press + or – to move the cursor (▶) to TV SYS, and press ENTER.
(2) Press + or – until your local TV system appears on the menu, and press ENTER.

4 Press + or – to move the cursor (▶) to MANUAL PROGRAM, and press ENTER.



5 Select the program position to which you want to preset a channel.

(1) Make sure the cursor (▶) appears beside PR, and press ENTER.
(2) Press + or – until the program position you want appears on the menu, and press ENTER.

6 Select the desired channel.

(1) Press + or – to move the cursor (▶) to VHF LOW, and press ENTER.
(2) Press + or – until the desired channel picture appears on the TV screen, and press ENTER.

7 Press MENU to return to the normal screen.

If the TV system is not properly selected

The picture color may be poor and/or the sound may be noisy. In this case, select the appropriate TV system.

1 Press PROGR +/– or the number buttons to select the program position.
2 Display the PRESET menu.
3 Press + or – to move the cursor (▶) to TV SYS, and press ENTER.
4 Press + or – until the appropriate TV system appears, and press ENTER.

Notes

- The TV system setting is memorized for each program position.
- If you do not know your local TV system, consult your nearest Sony dealer or authorized service center.

Disabling program positions

By disabling unused or unwanted program positions, you can skip those positions when you press PROGR +/–.

1 Press MENU.

2 Press + or – to move the cursor (▶) to the PRESET menu ( ), and press ENTER.

3 Press + or – to move the cursor (▶) to SKIP, and press ENTER.

4 Press + or – until the unused or unwanted program position appears on the menu, and press ENTER.

5 Press + or – to select ON, and press ENTER.

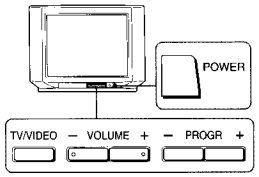
6 To disable other program positions, repeat steps 4 and 5.

7 Press MENU to return to the normal screen.

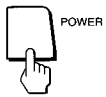
To cancel the skip setting

1 Display the PRESET menu.
2 Press + or – to move the cursor (▶) to SKIP, and press ENTER.
3 Press + or – until the program position you want to cancel the skip setting appears, and press ENTER.
4 Press + or – to select OFF, and press ENTER.

Watching the TV



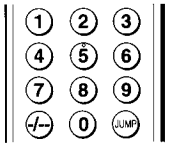
1 Press POWER to turn on the TV.



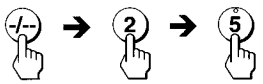
When the TV is turned on in the standby mode after pressing POWER on the TV, press POWER on the remote commander.

2 Select the TV program you want to watch.

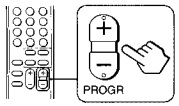
To select a program position directly
Press the number button.



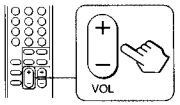
To select a two-digit program position, press "-/--" before the number buttons.
For example: to select program position 25, press "-/--," then "2" and "5."



To scan through program positions
Press PROGR +/– on the remote commander or the TV until the program position you want appears.

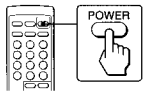


3 Press VOL +/– on the remote commander or VOLUME +/– on the TV to adjust the volume.

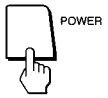


Turning off the TV

To turn off the TV temporarily
Press POWER on the remote commander. The standby indicator lights up.

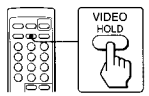


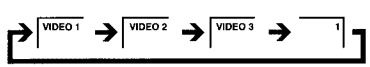
To turn off the TV completely
Press POWER on the TV.



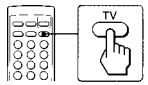
Watching the video input

Press VIDEO/HOLD on the remote commander or TV/VIDEO on the TV.



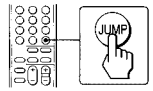


To watch TV
Press TV on the remote commander or TV/VIDEO on the TV.



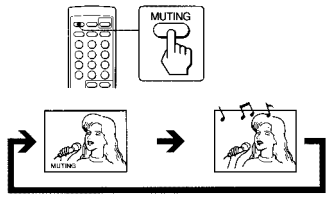
Switching back quickly to the previous channel

Press JUMP.



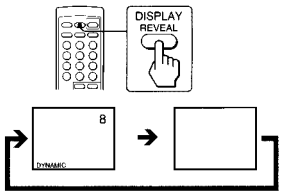
Muting the sound

Press MUTING.



Displaying the on-screen information

Press DISPLAY/REVEAL.

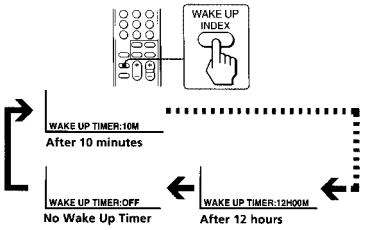


Note
- The on-screen display shows the program position or the video mode and the picture and sound information. The on-screen display for the picture and sound information disappear after being displayed for approximately three seconds.

Setting the Wake Up Timer

You can set the TV to turn on automatically after the period of time you want.

1 Press WAKE UP/INDEX repeatedly to set the timer.
The on-screen display appears.



2 If you want a particular TV program or video mode to be displayed using the Wake Up Timer, select the TV program or video mode.

3 Press POWER on the remote commander or set the Sleep Timer to turn off the TV in the standby mode.
The WAKE UP indicator lights up in amber color.

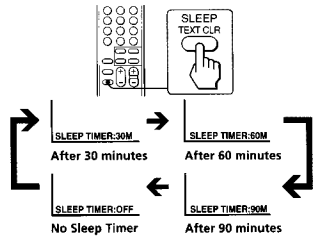
To cancel the Wake Up Timer, press WAKE UP/INDEX repeatedly until "WAKE UP TIMER: OFF" appears, or turn off the main power of the TV.

Notes
- The Wake Up Timer starts immediately after the on-screen display disappears.
- The last TV program position or video mode just before the TV turns into the standby mode will appear when the TV is turned on using the Wake Up Timer.
- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up Timer, the TV automatically turns into the standby mode. If you want to continue watching the TV, press any button or control on the TV or remote commander.

Setting the Sleep Timer

You can set the TV to turn off automatically after the period of time you want.

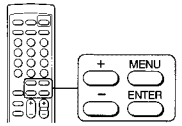
Press SLEEP.



To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP TIMER: OFF" appears, or turn the TV off.

Adjusting the picture and sound

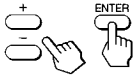
Selecting the picture and sound modes



1 Press MENU.

2 Make sure the cursor (▶) appears in the A/V CONTROL menu (), and press ENTER.

3 Press + or – to move the cursor (▶) to DYNAMIC, STANDARD, SOFT, or PERSONAL, and press ENTER.



Select	To
DYNAMIC	Receive high contrast picture with powerful sound.
STANDARD	Receive normal contrast picture with medium listening sound.
SOFT	Receive mild picture with soft sound.
PERSONAL	Receive the last picture and sound settings that are adjusted using VIDEO ADJUST and AUDIO ADJUST.

4 Press MENU to return to the normal screen.

Adjusting the picture settings (VIDEO ADJUST)

You can adjust the picture settings to suit your taste with the VIDEO ADJUST option. The adjusted settings are stored in the PERSONAL option.

1 Press MENU.

2 Make sure the cursor (▶) appears in the A/V CONTROL menu (), and press ENTER.

3 Press + or – to move the cursor (▶) to VIDEO ADJUST, and press ENTER.

4 Press + or – to move the cursor (▶) to the item you want to adjust, and press ENTER.

5 Press + or – to adjust the selected item, and press ENTER.

For details on each item, see "Description of adjustable items" below.

6 To adjust other items, repeat steps 4 and 5.

7 Press MENU to return to the normal screen.

Description of adjustable items

Item	Press –	Press +
PICTURE	Decrease picture contrast.	Increase picture contrast.
COLOR	Decrease color intensity.	Increase color intensity.
BRIGHT	Darken the picture.	Brighten the picture.
HUE	Make picture tones become reddish.	Make picture tones become greenish.
SHARP	Soften the picture.	Sharpen the picture.
VM	Decrease emphasis on picture edges.	Increase emphasis on picture edges.

Note

- You can adjust HUE for the NTSC color system only.

If the picture is slightly snowy
You may try to improve the picture by changing the VM setting as described below:

1 Display the VIDEO ADJUST menu.
2 Press + or – to move the cursor (▶) to VM, and press ENTER.
3 Press + or – to select LOW, and press ENTER.

If the picture color is abnormal when receiving programs through the ╥ (antenna) terminal
Change the color system or the TV system from the PRESET menu as described below until the color becomes normal.

1 Display the PRESET menu.
2 Press + or – to move the cursor (▶) to COL SYS or TV SYS, and press ENTER.
3 Press + or – to change the color system or the TV system until the color becomes normal, and press ENTER.

Note
• Normally set the color system (COL SYS) to AUTO.

Adjusting the sound settings (AUDIO ADJUST)

You can adjust the sound settings to suit your taste with the AUDIO ADJUST option. The adjusted settings are stored in the PERSONAL option.

1 Press MENU.

2 Make sure the cursor (▶) appears in the A/V CONTROL menu (), and press ENTER.

3 Press + or – to move the cursor (▶) to AUDIO ADJUST, and press ENTER.

4 Press + or – to move the cursor (▶) to the item you want to adjust, and press ENTER.

5 Press + or – to adjust the selected item, and press ENTER.

For details on each item, see "Description of adjustable items" below.

6 To adjust other items, repeat steps 4 and 5.

7 Press MENU to return to the normal screen.

Description of adjustable items

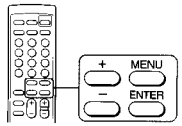
Item	Press –	Press +
BASS	Decrease the bass sound.	Increase the bass sound.
TREBLE	Decrease the treble sound.	Increase the treble sound.
BALANCE	Increase the left speaker's volume	Increase the right speaker's volume.

If the sound is distorted or noisy when receiving programs through the ╥ (antenna) terminal
Change the TV system from the PRESET menu as described below until the sound becomes normal.

1 Display the PRESET menu.
2 Press + or – to move the cursor (▶) to TV SYS, and press ENTER.
3 Press + or – to change the TV system until the sound becomes normal, and press ENTER.

Listening to the surround sound (SURROUND)

The SURROUND feature enables you to enjoy a surround sound effect that is like being in a large hall or live concert when receiving stereo signals.

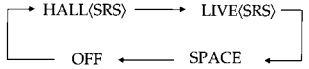


1 Press MENU.

2 Press + or – to move the cursor (▶) to the FEATURES menu ( ), and press ENTER.

3 Make sure the cursor (▶) appears beside SURROUND, and press ENTER.

4 Press + or – to select HALL⟨SRS⟩, LIVE⟨SRS⟩, or SPACE, and press ENTER.



For details on each item, see "Description of adjustable items" below.

5 Press MENU to return to the normal screen.

Description of adjustable items

Select	To
HALL⟨SRS⟩	Listen to a sound that spreads out over a large area.
LIVE⟨SRS⟩	Listen to the sound that gives the feeling of being at a live concert.
SPACE	Listen to a monaural sound that gives a stereo-like effect.
OFF	Turn off the surround sound.

Note
• The (●) ® SRS (SOUND RETRIEVAL SYSTEM) is manufactured by Sony Corporation under license from SRS Labs, Inc. It is covered by U.S. Patent No. 4,748,669.
The word "SRS" and the SRS symbol (●) are registered trademarks of SRS Labs, Inc.

Customizing the TV

Using the AV OUT (advanced rec-out) terminal

You can select the output signal from the MON/TV OUT jacks at the rear of the TV.

1 Press MENU.

2 Press + or – to move the cursor (▶) to the FEATURES menu (), and press ENTER.

3 Press + or – to move the cursor (▶) to AV OUT, and press ENTER.

4 Press + or – to select the output signal, and press ENTER.

Select	To
TV	Output the signal of the TV broadcast.
MONITOR	Output the signal of the picture you are watching as a main picture.

Note

- Do not change the channel while recording with a VCR through the MON/TV OUT jacks. If you change the channel, it also changes the channel you are recording.

Adjusting the picture tilt

■ KV-J29MF8J only

You can adjust the picture tilt if it is not aligned to the TV screen. This may happen due to the direction of the earth's magnetic fields in relation to the TV position.

1 Press MENU.

2 Make sure the cursor (▶) appears in the A/V CONTROL menu (), and press ENTER.

3 Press + or – to move the cursor (▶) to TILT CORRECT, and press ENTER.

4 Press + or – to select the most suitable value to adjust the picture tilt, and press ENTER.

TILT CORRECT:

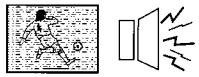
–5 ← –4 ← –3 ← –2 ← –1 ← 0 → +1 → +2 → +3 → +4 → +5

Press – Press +

Troubleshooting

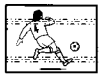
If you have any problems, read this manual again and check the countermeasure for each of the symptoms listed below.
If the problem persists after trying the methods below, contact your nearest Sony dealer or authorized service center.

Snowy picture
Noisy sound



➡Check the antenna.
➡Check the antenna connection on the TV and on the wall.
➡Check the TV system (TV SYS) setting.

Dotted lines or stripes

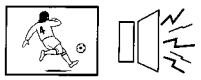


➡This may be caused by local interference (e.g. cars, neon signs, hair dryers, etc.). Adjust the antenna for minimum interference.

Double images or "ghosts"

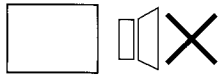
➡This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.

Good picture
Noisy sound



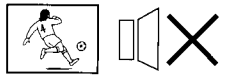
➡Check the TV system (TV SYS) setting.

No picture
No sound



➡Press POWER.
➡Press POWER to turn off the TV for about five seconds and then turn it on again.
➡Check the power cord connection.
➡Check the antenna connection.
➡Check the VCR connections.

Good picture
No sound



➡Press VOL +.
➡Press MUTING.

No color

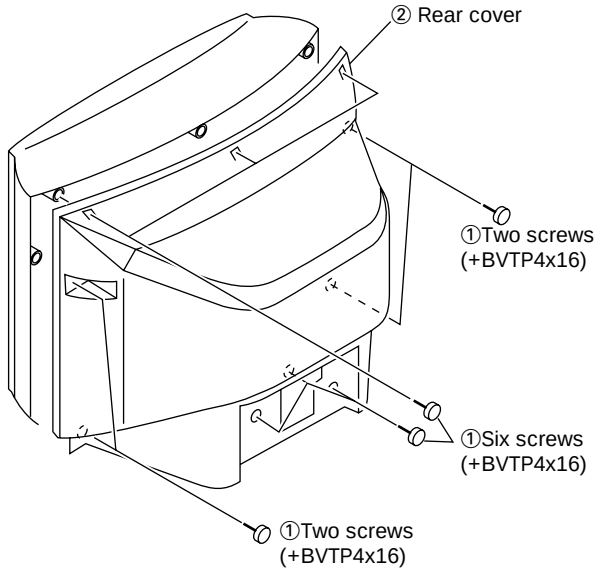
➡Adjust the COLOR level in the VIDEO ADJUST menu of the PERSONAL option.
➡Check the color system (COL SYS) setting.

TV cabinet creaks

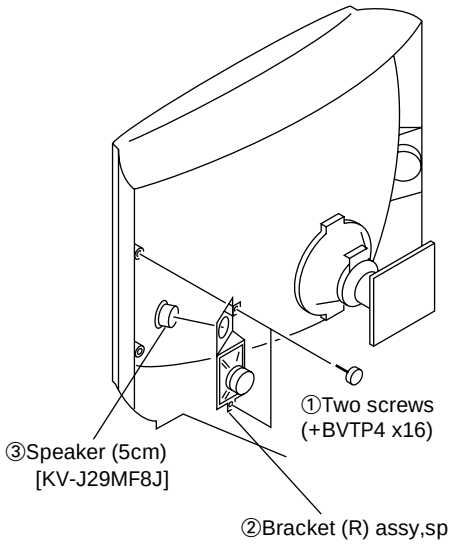
➡Even if the picture or the sound is normal, changes in the room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.

SECTION 2
DISASSEMBLY

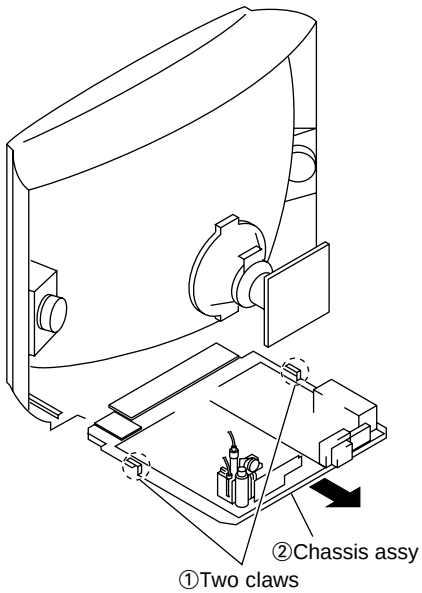
2-1. REAR COVER REMOVAL



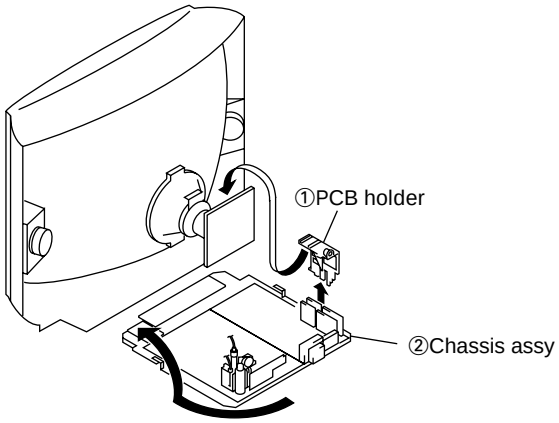
2-2. SPEAKER REMOVAL

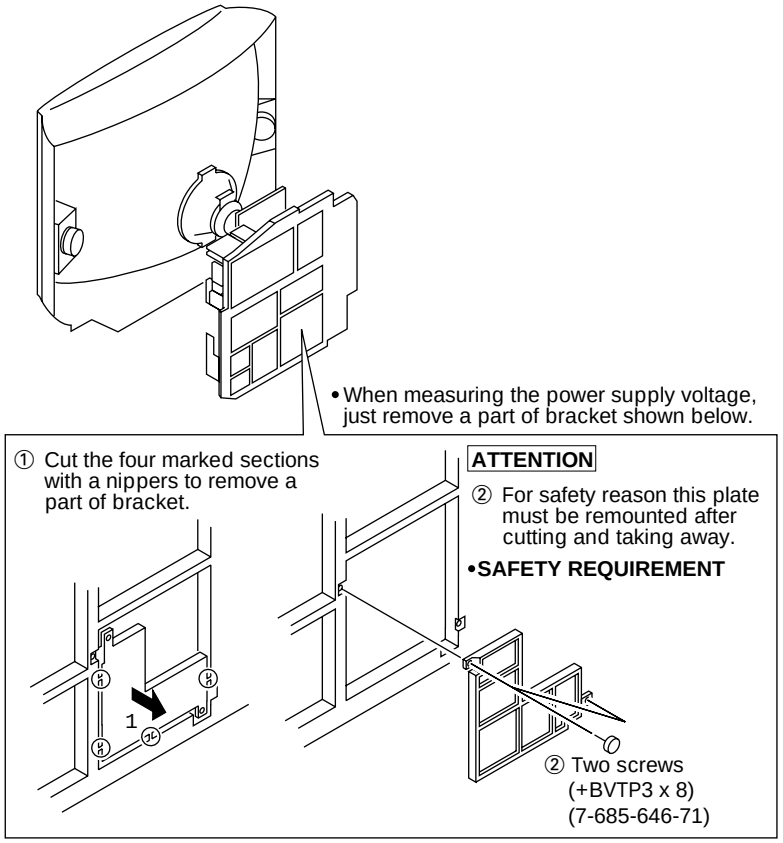


2-3. CHASSIS ASSY REMOVAL

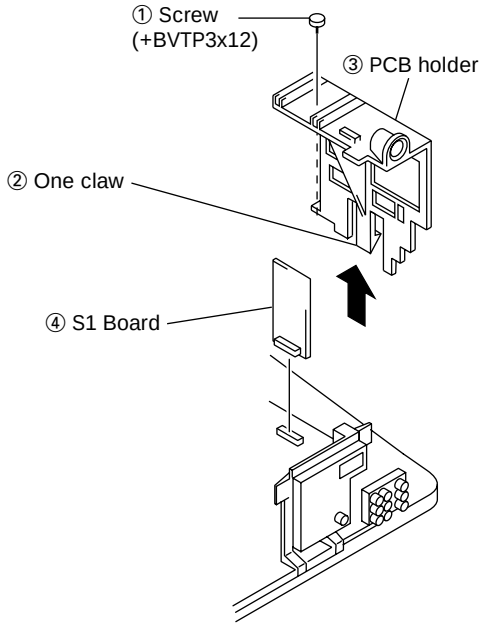


2-4. SERVICE POSITION

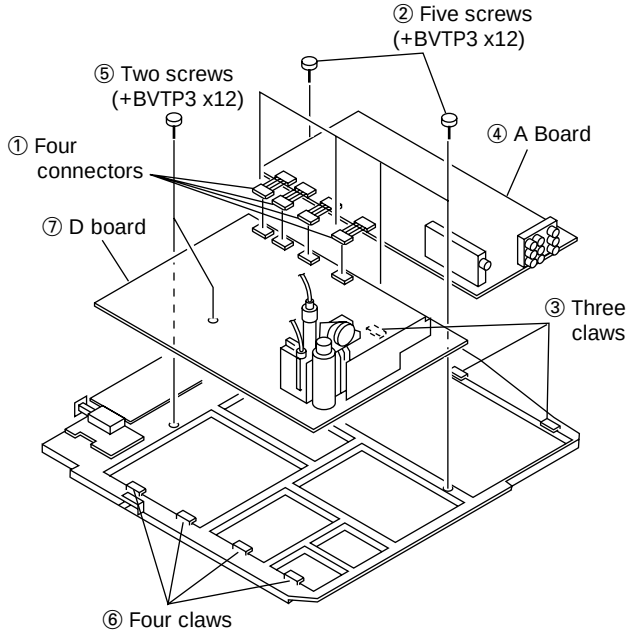



• When measuring the power supply voltage, just remove a part of bracket shown below.
① Cut the four marked sections with a nippers to remove a part of bracket.
ATTENTION
② For safety reason this plate must be remounted after cutting and taking away.
•SAFETY REQUIREMENT
1
② Two screws (+BVTP3 x 8) (7-685-646-71)

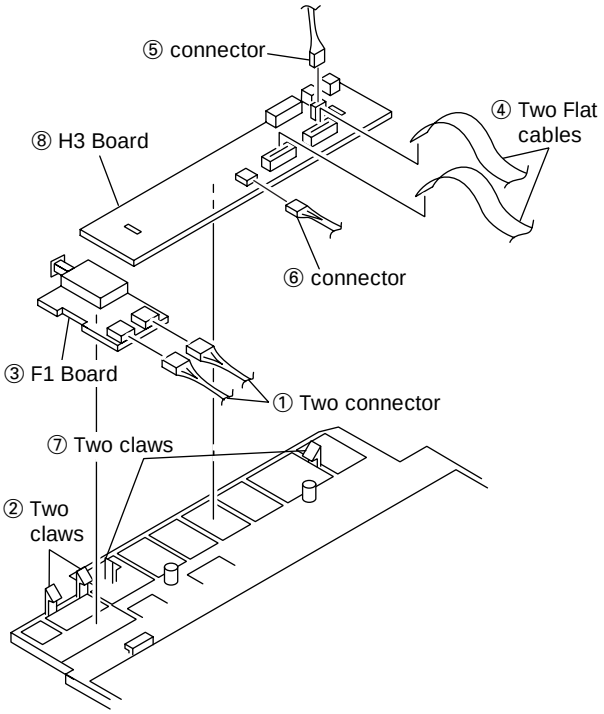
2-5. S1 BOARD REMOVAL



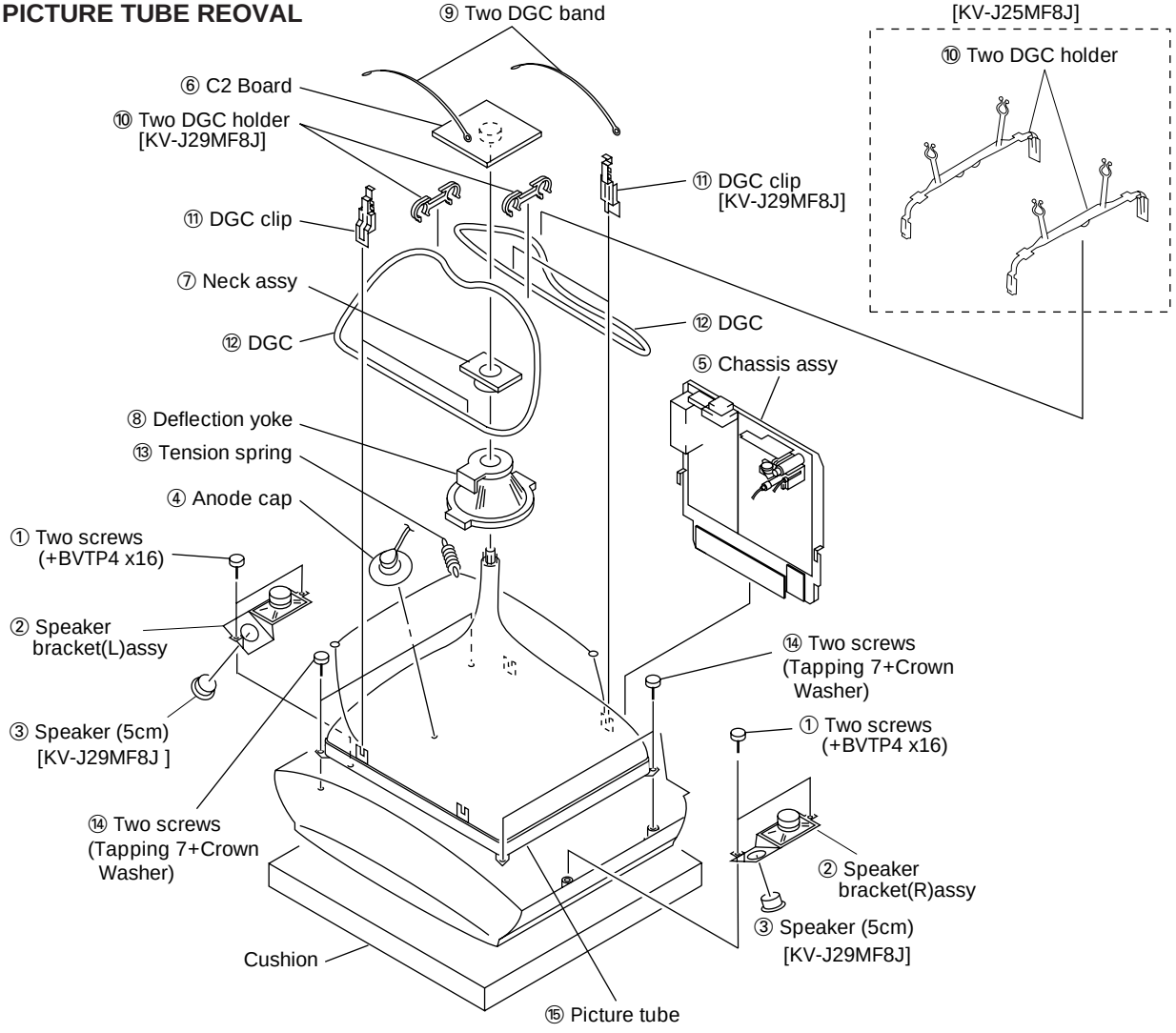
2-6. A AND D BOARDS REMOVAL



2-7. F1 AND H3 BOARDS REMOVAL



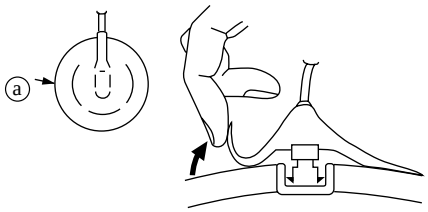
2-8. PICTURE TUBE REOVAL



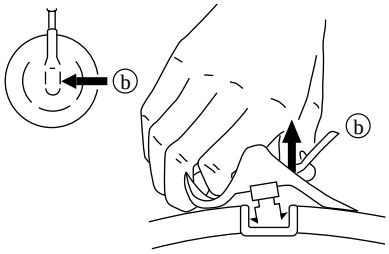
• REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

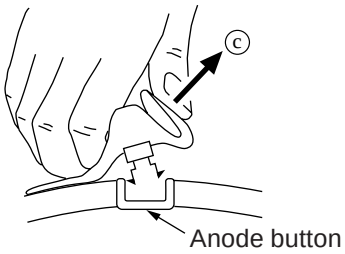
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



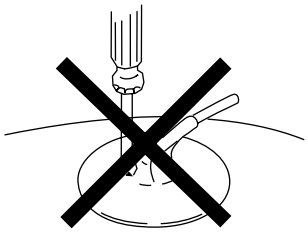
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

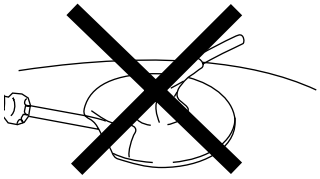
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps! A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly! The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted:
PICTURE control ..... RESET
BRIGHTNESS control ..... CENTER

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input a white signal with the pattern generator.
   Contrast } normal
   Brightness
2. Position neck ass'y as shown in Fig3-2.
3. Set the pattern generator raster signal to a red raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side.
   (See Figures 3-1 through 3-3.)
5. Move the deflection yoke forward and adjust so that the entire screen is red. (See Figure 3-1.)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it.
   (See Figure 3-4.)

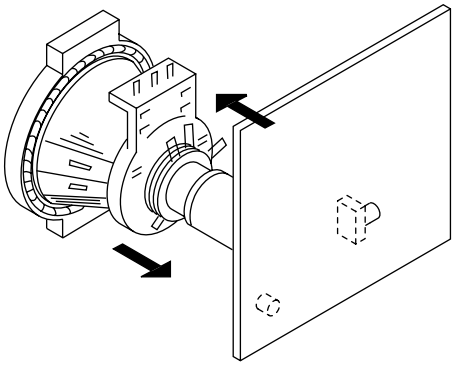


Fig. 3-1

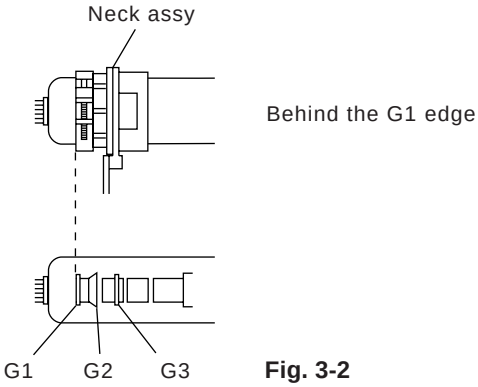


Fig. 3-2

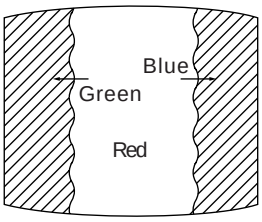


Fig. 3-3

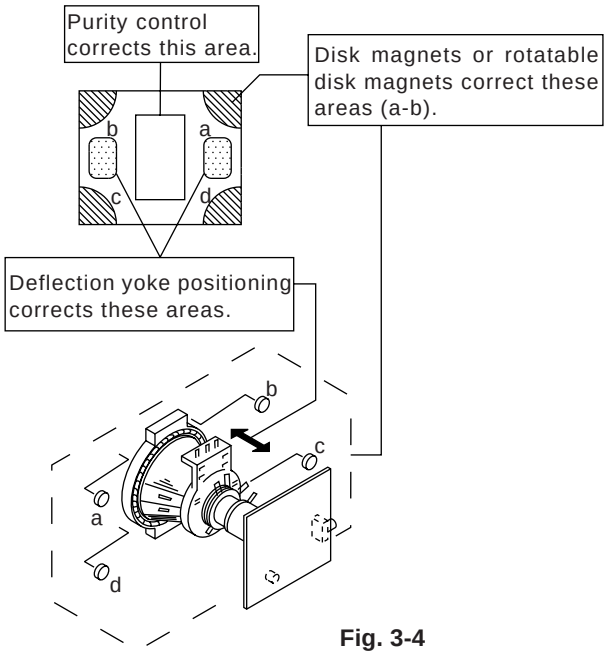


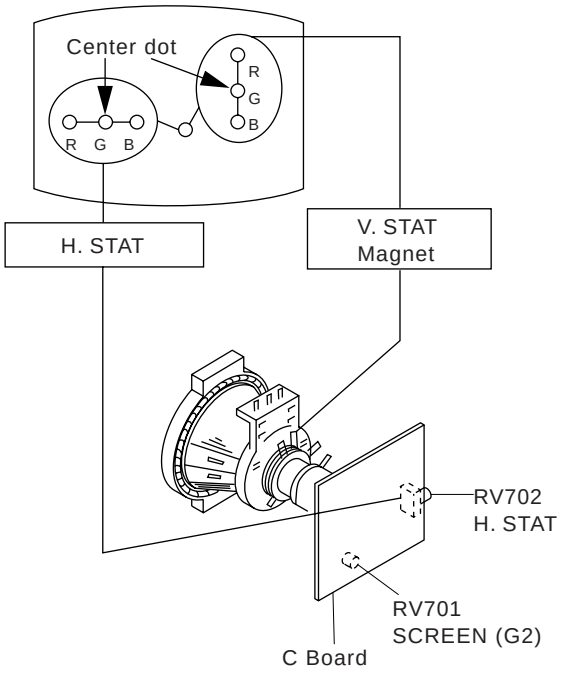
Fig. 3-4

3-2. CONVERGENCE

Preparations :

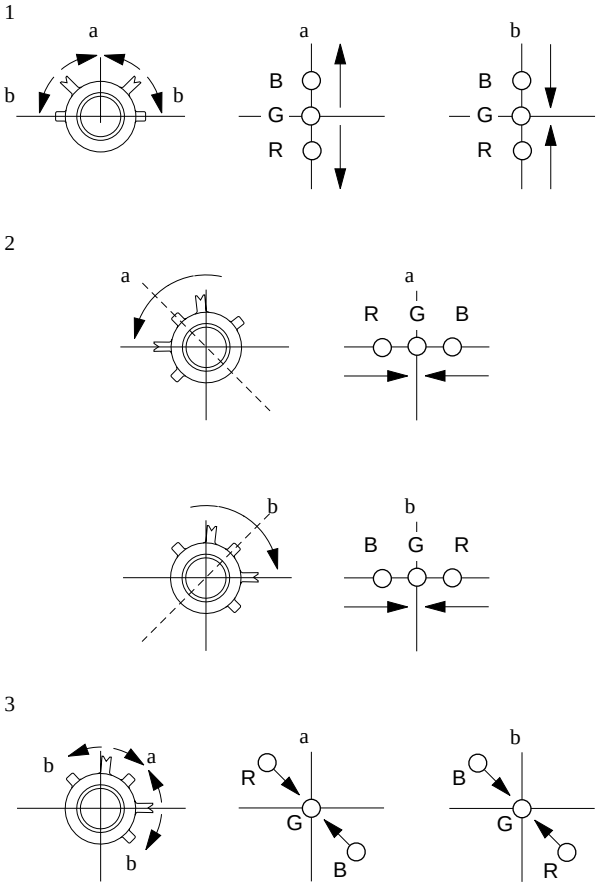
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and Vertical Static Convergence

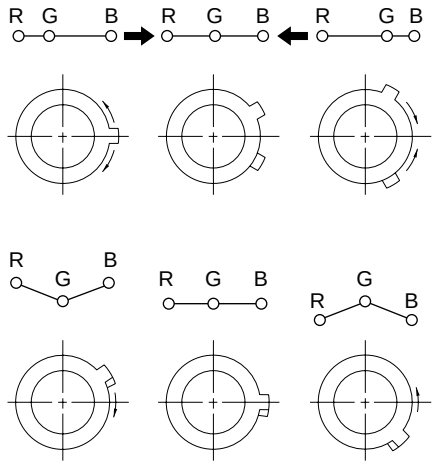


1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other.)

- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.
  If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.

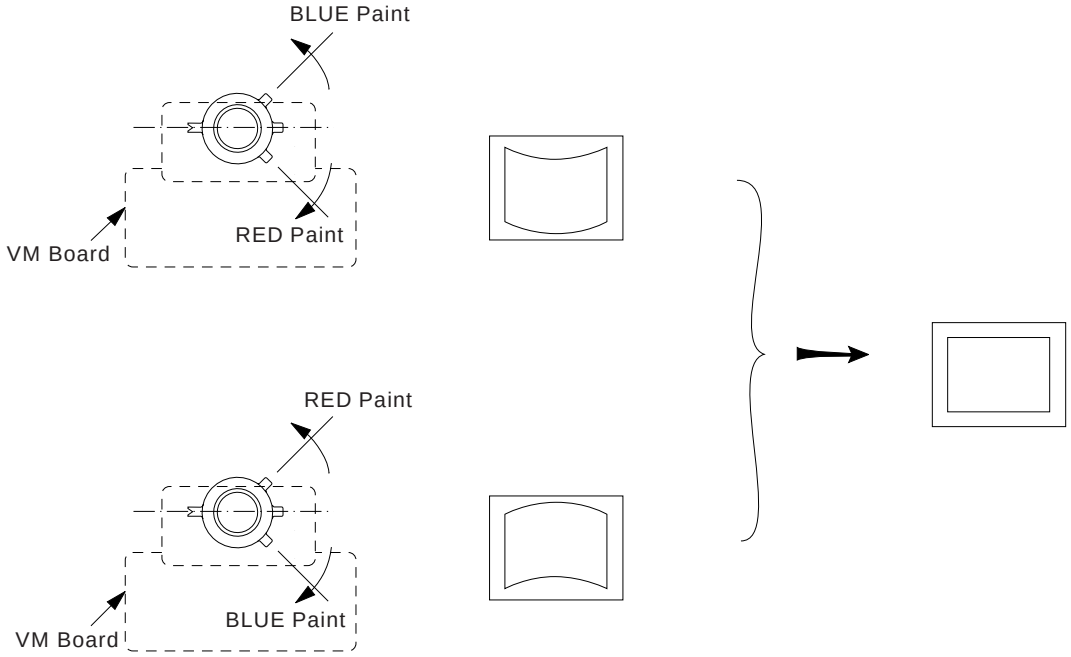


- Operation of BMC (Hexapole) Magnet
  If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.



1 Y separation axis correction magnet adjustment receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .

2 Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.



Note 1) The Red and Blue magnets should be equally far from the horizontal center line.
2) Do not seperate the Red and Blue magnets too far. (Less than 8 mm)

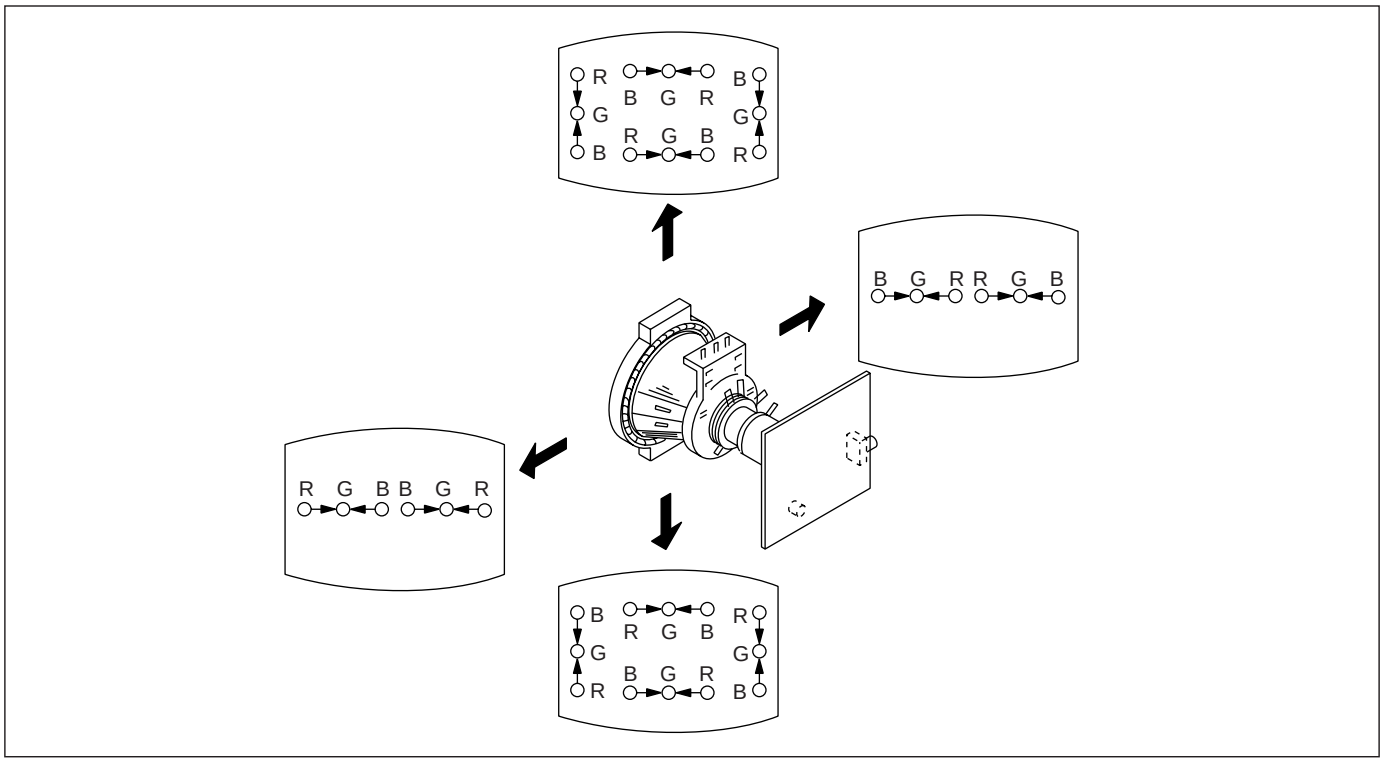
- Use the H.STAT VR to adjust the red, green, and blue dots so that they coincide at the center of screen.
  The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.

(2) Dynamic Convergence Adjustment

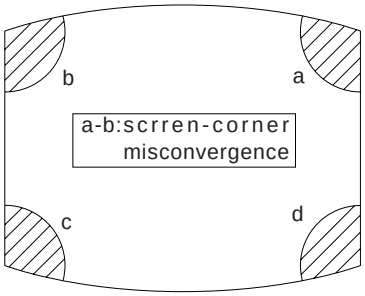
Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence

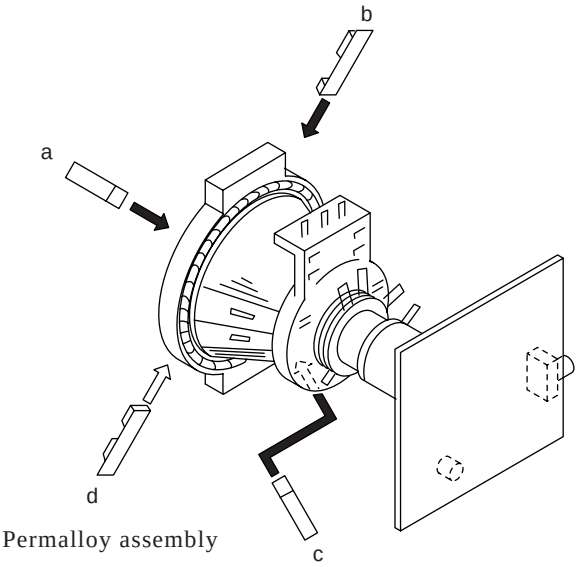
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.



(3) Screen-corner Convergence



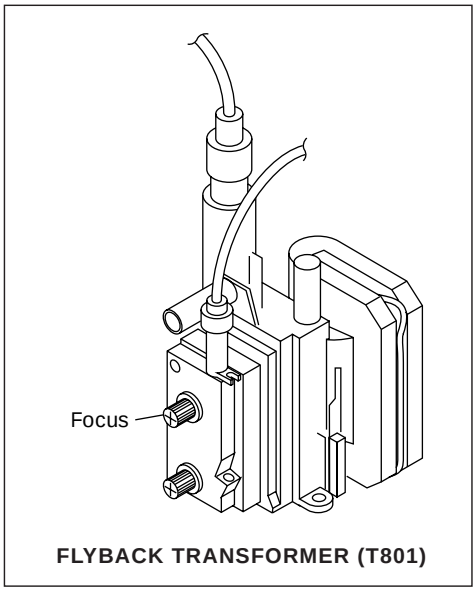
Affix a Permalloy assy corresponding to the misconverged areas.



Permalloy assembly

3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for the best focus.



FLYBACK TRANSFORMER (T801)

a. AN ITEM OF ADJUSTMENT

Item number	Adjustment item	Standard DATA	Note
37	SBR	1F	SUB-BRIGHTNESS
39	GDR	2C	G. Drive
3A	BDR	2C	B. Drive
3B	GCF	07	G. CUT-OFF
3C	BCF	07	B. CUT-OFF

b. METHOD OF CANCELLATION FROM SERVICE MODE

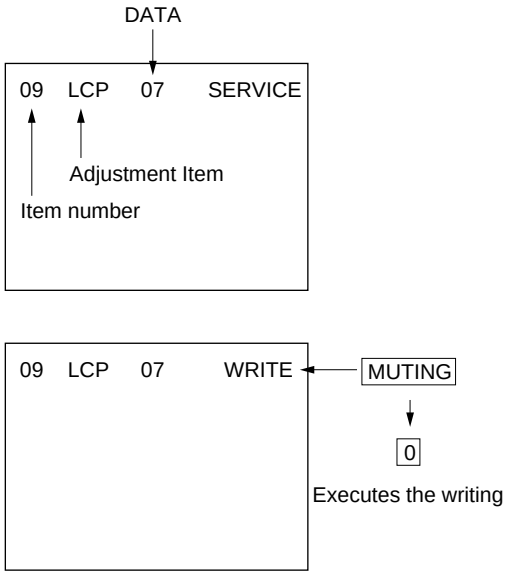
Set the standby condition (Press [POWER] button on the commander), then press [POWER] button again, hereupon it becomes TV mode.

c. METHOD OF WRITE FOR MEMORY

1) Set to Service Mode.
2) Press [1] (UP) and [4] (DOWN), select an item of adjustments.
3) Press [MUTING] button indicate WRITE (RED) on screen.
4) Press [0] button to write into memory.

d. MEMORY WRITE CONFIRMATION METHOD

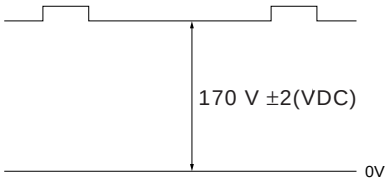
1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
2) Turn the power switch ON and set to Service Mode.
3) Call the adjusted items again to confirm adjustments were made.



3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G2 (SCREEN) ADJUSTMENT (RV701)

1) Set the PICTURE and BRIGHTNESS to normal.
2) Put to VIDEO input mode without signals.
3) Set to Service Mode.
4) Change BLU data of the item number [8C] from [01] to [00]. (To turn off Blue Back.)
5) Press [MUTING], and [0] to write the data in the memory.
6) Connect R, G, and B of the C board cathode to the oscilloscope.
7) Adjust G2 (RV701) volume to the value below.



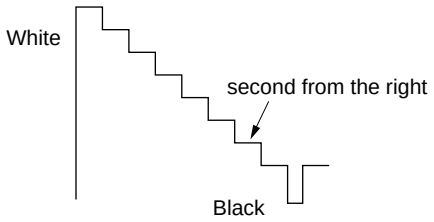
8) Re-set BLU data of the item number [8C] from [00] back to [01].
9) Press [MUTING], and [0] to write the data in the memory.

2. WHITE BALANCE ADJUSTMENTS

1) Set to service Mode.
2) Input white raster signal.
3) Set the PICTURE to minimum.
4) Select SBR(35) with [1] and [4], and then set the level to minimum with [3] and [6].
5) Select GCF(39) and BCF(3A) with [1] and [4]. And adjust the level with [3] and [6] for the best white balance.
6) Set the PICTURE to maximum.
7) Select GDR(37) and BDR (38) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
8) Write into the memory by pressing [MUTING] then [0].

3. SUB BRIGHT ADJUSTMENT

1) Set to service mode.
2) Input a staircase signal of black and white from the pattern generator.
3) BRIGHTNESS .... RESET.
   PICTURE ..... minimum
4) Select SBR(55) with [1] and [4], and adjust SBR level with [3] and [6] so that the stripe second from the right is dimly lit.



SECTION 4
SELF DIAGNOSIS FUNCTION

If no acknowledgement is returned from a device which is turned "ON", the device has a problem.
In this case, one of the LED's responding to the problem device will flicker a defined number of times.

The flickering frequuncy responding to each failed device is shown below.

Board name	A Board	A Board	A Board	A Board
Ref. No	IC003	IC1201	IC104	IC206
Device	NONVOLA-TILE MEMORY	AV SWITCH (CXA1855S)	MAIN Y/C (CXA2050S)	AUDIO PROCESSOR (TDA8424)
Flickering Frequency	1	2	3	6

All the device are checked one after another from the left on the table.
If an error is found, the responding LED will start flickering.
So, if more than 2 device are failed, the one on the left side will start flickering first.

SECTION 5
CIRCUIT ADJUSTMENTS

5-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-871 that comes with this unit.

Entering service mode

With the unit on standby

↓

[DISPLAY]

↓

[5]

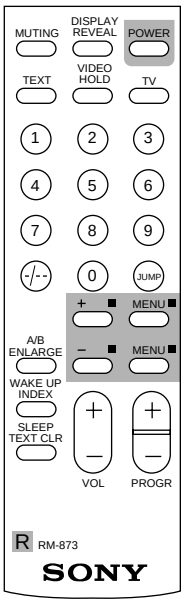
↓

[VOL (+)]

↓

[POWER]

The operation sequence puts the unit into service mode.

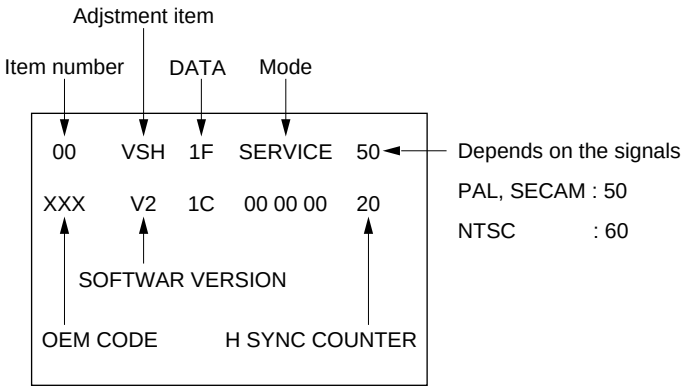


RM-873

[1], [4]	Select the adjustment item.
↓	
[3], [6]	Raise/lower the data value.
↓	
[MUTING]	Writes.
↓	
[0]	Executes the writing.

[7], [0]	All the data becomes the values in memory.
[8], [0]	All user control goes to the standard state.
[5], [0]	Service data initialization (Be sure not to use usually.)
[2], [0]	Write 50Hz adjustment data to 60Hz, or vice versa.

The screen display is :

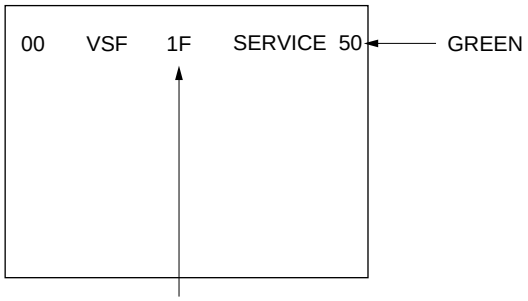


5-2. ADJUSTMENT METHOD

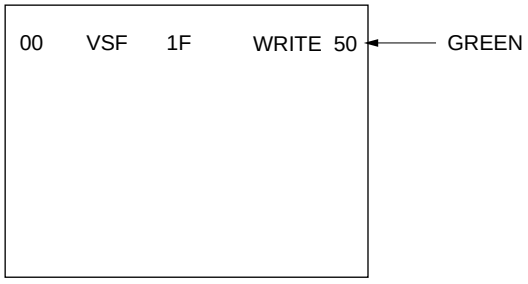
Item Number 00

This explanation uses V-Position as an example.

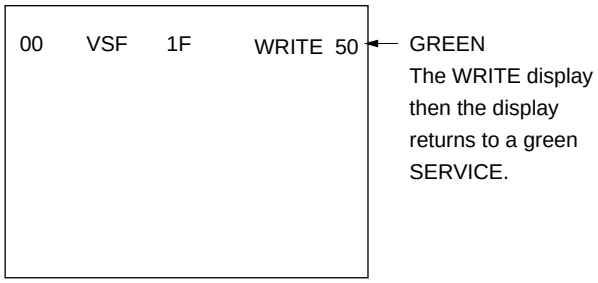
1. Select 00 VSH with the [1] and [4] buttons.
2. Raise/lower the data with the [3] and [6] buttons.
3. Select the optimum state. (The standard is IF for PAL reception.)
4. Write with the [MUTING] button. (The display changes to WRITE.)
5. Execute the writing with the [0] button. (The WRITE display will be changed back to SERVICE.)



Adjusted with [3] and [6] buttons



Written with [MUTING]



Write executed with [0]

Use the same method for Items Number 00-96. Use [1] and [4] to select the adjustment item, use [3] and [6] to adjust, write with [MUTING], then execute the write with [0].

Note : In [WRITE], the data of all items are into memory.

- As for V-FREQ, by searching the bolded screen V range with adjusting data.

Note : For adjustment Items that have differnt standard data between 50Hz or 60Hz and novwel or wid, be sure to use the respective input signal ather adjusting.

Adjustment Item Table

Item number	Adjustment Item	Data range	Standard data		Note	Device
			J29	J25		
00	VSH	00-3F	1F		V Position	CXA2050S
01	VSZ	00-3F	1F		V Size	(Y/C/J)
02	**HSH**	00-0F	07		H Position	Slv:88H
03	HSZ	00-3F	1F		H Size	
04	SRC	00-0F	07		S Correction	
05	VLN	00-0F	07		V Linearity	
06	PAP	00-3F	1F		Pin Comp	
07	PPH	00-0F	07		Pin Phase	
08	UCP	00-0F	07		Up Corner Pin	
09	LCP	00-0F	07		Low Corner Pin	
0A	BOW	00-0F	07		AFC-Bow	
0B	ANG	00-0F	07		AFC-Angle	
0C	**VAP**	00-3F	2F		V Aspect	
0D	VSC	00-3F	1F		V Scroll	
0E	ULN	00-0F	00		UP V Linearity	
0F	LLN	00-0F	00		LOW V Linearity	
10	**EHH**	00-03	01	00	EHT-H	
11	**EHV**	00-03	01		EHT-V	
12	**HBS**	00-01	01		H Blk Wid. ON/OFF	
13	**LBK**	00-0F	0F		L Blk Width	
14	**RBK**	00-0F	0F		R Blk Width	
15	**JSW**	00-01	00		Jump ON/OFF Sw	
16	**VBW**	00-03	02		V Blk Wid. Con.	
17	**AFC**	00-03	01		AFC-Mode	
18	**FHH**	00-01	00		FH-HI	
19	**VFQ**	00-03	00		V-Freq	
1A	**VOF**	00-01	00		V OFF	
1B	**VMD**	00-01	00		CD-Mode 2	
1C	**CMD**	00-01	00		CD-Mode	
1D	**ITL**	00-03	00		Inter lace	
1E	**ZSW**	00-01	00		ZOOM SW	
1F	**POV**	00-03	03		Pre-Over	
20	**CT1**	00-01	01		C-Trap(NTSC)	
21	**CT2**	00-01	00		C-Trap(PAL)	
22	**CF0**	00-0F	00		C-Trap f0 Adj	
23	**SF0**	00-01	00	01	Sharpness f0 Adi	
24	**TOT**	00-01	01		TOT Filter SW	
25	**CSW**	00-03	00		Color SW	
26	**XTL**	00-03	00		Xtal	
27	**CV1**	00-01	01		CV/YC Select(NTSC)	
28	**CV2**	00-01	00		CV/YC Select(PAL)	
29	**VM**	00-01	01		VM ON/OFF	
2A	**YVM**	00-01	00		YSI/VM SW(0:YSI)	
2B	**DPC**	00-01	01		D-Pic ON/OFF	
2C	**DCO**	00-01	01		Dynamic Color	
2D	**GMM**	00-03	01		Gamma	
2E	**DTR**	00-01	01		DC-Tran	
2F	**DL1**	00-07	01		Delay Ctrl.(PAL)	
30	**DL2**	00-07	03		Delay Ctrl.(NTSC)	
31	**DL3**	00-07	03		Delay Ctrl.(SECAM)	
32	SCN	00-0F	09		Sub-Contrast	
33	SC1	00-0F	07		Sub-Color(PAL)	
34	SC2	00-0F	06		Sub-Color(NTSC)	
35	SH1	00-0F	07		Sub-Hue(TV)	
36	SH2	00-0F	07		Sub-Hue(VIDEO)	
37	SBR	00-3F	1F		Sub-Bright	
38	**SSH**	00-07	04	04	Sub-Sharpness	
39	GDR	00-3F	2C		G-Drive	

Note: Bold items are fixed data.

* : NTSC , NO MARK : PAL

Adjustment Item Table

Item number	Adjustment Item	Data range	Standard data		Note	Device
			J29	J25		
3A	BDR	00-3F	2C		B-Drive	CXA2050S
3B	GCF	00-0F	07		G-Cutoff	(Y/C/J)
3C	BCF	00-0F	07		B-Cutoff	Slv:88H
3D	**RPO**	00-03	01		Ref-Position	
3E	**PON**	00-01	01		Pic-ON	
3F	**RON**	00-01	01		R ON	
40	**GON**	00-01	01		G ON	
41	**BON**	00-01	01		B ON	
42	**AKF**	00-01	00			
43	**ESY**	00-01	00			
44	**AGG**	00-01	00			
45	**ABL**	00-01	00		Picture Booster	
46	**LIM**	00-01	00		Black Offset	
47	**PB**	00-01	00		Picture Booster	TDA9170
48	**BOF**	00-00	00		Black Offset	(Picture
49	**UVG**	00-3F	00		User Var Gamma	Improve)
4A	**ADG**	00-3F	00		Adaptive Gamma	Slv:D0H
4B	**NLA**	00-3F	00		Non-linear Amp	
4C	**WDS**	00-02	00		Window Select	
4D	**LST**	00-0F	00		Window Line Start	
4E	**LSP**	00-0F	00		Window Line Stop	
4F	**FST**	00-0F	00		Window Field Start	
50	**FSP**	00-0F	00		Window Field Stop	
51	**VA**	00-01	00		V Aperture on/off	CXA1315
52	**VAW**	00-03	00		V Aperture white	(V-AP)
53	**VAB**	00-03	00		V Aperture black	Slv:48H
54	**VAC**	00-0F	00		V Aperture core	
55	**SHP**	00-3F	00		Sharpness	CXA1315
56	**VML**	00-3F	00		VM mitter	(LTI)
57	**COR**	00-3F	00		Conng	Slv:42H
58	**DOF**	00-3F	00		DSC Offset	
59	**DGA**	00-3F	00		DSC Gain	
5A	**DLT**	00-01	00		Delay Time	
5B	**SDL**	00-0F	00		SEL Pin Delay	SDA9189X
5C	**POH**	00-FF	00		H Position(MSB 8bit)	(PinP)
5D	**POV**	00-FF	00		V Position	Slv:D6H
5E	**PMD**	00-1F	00		PinP Display Mode	
5F	**WRP**	00-0F	00		Write Position	
60	**HDL**	00-1F	00		HS Delay	
61	**AMS**	00-01	00		Decimation Filter	
62	**VDL**	00-1F	00		VS Delay	
63	**VSP**	00-1F	00		VSP Delay	
64	**CON**	00-0F	00		Contrast	
65	**FRY**	00-0F	00		Frame Y	
66	**FRV**	00-0F	00		Frame V	
67	**FRU**	00-0F	00		Frame U	
68	**INF**	00-01	00		Inner Frame	
69	**FWV**	00-03	00		Frame Width V	
6A	**FWH**	00-07	00		Frame Width H	
6B	**PLL**	00-03	00		PLL Loop Filter	
6C	**PDV**	00-0F	00		Pedestal V	
6D	**PDU**	00-0F	00		Pedestal U	
6E	**DAT**	00-01	00		DAC Stream Control	
6F	**DAN**	00-01	00		DAC Control	

Note: Bold items are fixed data.

Adjustment Item Table

Item number	Adjustment Item	Data range	Standard data J29	Standard data J25	Note	Device
70	**WIP**	00-01	00		Wipe on/off	SDA9189X
71	**WSP**	00-03	00		Wipe Speed	(PinP) Slv:D6H
72	**FAW**	00-FF	08		NICAM FAW Thresh	MSP3410
73	**CTM**	00-FF	08		NICAM Error Bit(MONO)	(Stereo Decoder)
74	**CTN**	00-FF	50		NICAM Error Bit(NICAM)	Slv:80H
75	**WCD**	00-FF	0A		W.G.DATA CHANGE	
76	**WST**	00-FF	15		W.G.STEREO Threshold	
77	**WTM**	00-FF	50		W.G.Timer	
78	**WBT**	00-01	EA		W.G.bilingual Threshold	
79	**ACG**	00-01	01		AGC AUTO/CONST	
7A	**CDB**	00-3F	28		AGC GAIN CONST.	
7B	**FGP**	00-7F	24		FM(BG,I,DK)Prescale	
7C	**FMP**	00-7F	40		FM(M)Prescale	
7D	**WGP**	00-7F	3C		W.G.Prescale	
7E	**NIP**	00-7F	7F		NICAM Prescale	
7F	**CRM**	00-01	00		Carrier Mute	
80	**CML**	00-03	00		Carrier Mute Level	
81	**ACO**	00-01	01		Audio Clock Out	
82	**WAC**	00-0F	01		W.G.Agreement count	
83	**DLY**	00-FF	30		Stereo Search Delay	
84	**DLG**	00-FF	10		W.G.Search Delay	
85	**TXP**	00-0F	0E		Text Picture cont.	SAA 5281
86	**MXP**	00-0F	0F		Text Mix Mode Pic	(Text decoder) Slv:58H
87	**BB1**	00-3F	00		BBE control High	CXA1315
88	**BB2**	00-3F	1D		BBE control Middle	(BBE)
89	**BB3**	00-3F	28		BBE control Low	Slv:40H
8A	**ATW**	00-03	00		Auto Wide Ident speed	CXP5068 (Auto wide)
8B	**BKP**	00-FF	00		Blk off Picture	CXP85340
8C	OSH	00-3F	0E		OSD Position H	(MICRO-
8D	**ODL**	00-FF	10		Power On Delay	CONTROLLER)
8E	**BLU**	00-01	01		Blue Back on/off	
8F	**ROC**	00-0F	08		N/S Center Vol.	
90	**ROS**	00-07	07		User Step	
91	**DKS**	00-01	00		D/K Stereo Serch	
92	**MUT**	00-01	01		No.Sync.Mute	
93	**DID**	00-01	00		Disable Degauss	
94	**DWZ**	00-01	00		Disable Widezoom	
95	**BCS**	00-01	00		BASS Center Shift	
96	**BVS**	00-01	00		BASS Volume Shift	
97	**WBS**	00-03	01		Woofer off Bass Shift	
98	**OPO**	00-FF	01		Option 0	
99	**OP1**	00-FF	32	02	Option 1	

Note: Bold items are fixed data.

ITEM INFORMATION

- 50 ··· 50Hz data, 60 ··· 60Hz data
- Standard data listed on the Adjustment Item Table are reference values, therefore if is different for every model.

5-3. PICTURE QUALITY ADJUSTMENTS

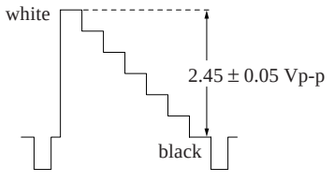
Item Number 33-36

33 SCO Sub-Color
34 SHU Sub-Hue
35 SBR Sub-Bright

5-4. A BOARD ADJUSTMENT

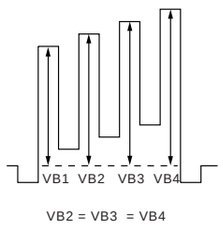
SUB CONTRAST ADJUSTMENT (SCN)

1. Receive a PAL color-bar.
2. Set service item 3E GON and 3F BON to data "00". Set the PICTURE 100%, BRIGHT 50% and COLOR MIN.
3. Connect an oscilloscope to the pin ⑥ (R OUT) of CN117, A board.
4. Set to Service Mode and select 32 (SCN) using [1] and [4] of the commander to adjust to 2.10 ± 0.05V.
5. Press [MUTING] → [0] of the commander to write the data.
6. Receive a NTSC color-bar and adjust 32 (SCN) as step 2~5.
7. Set servce item 3E GON and 3F Bon to data "01".



SUB COLOR ADJUSTMENT (SCO)

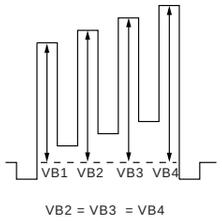
1. select Video1
2. Input a PAL color-bar, video into video1.
   Set to the following condition:
   PIC 100%, BRT 50%, COL 50%
3. Connect an oscilloscope to the pin ⑤ (B OUT) of CN117, A board.
4. Set to Service Mode and select 33 (SCO) with [1] and [4] of the commander to adjust to VB2=VB3=VB4 with [3] and [6].
5. Press [MUTING] → [0] of the commander to write the data.
6. Adjust 33 (SCO) as step 1~4.



7. [Receive] the NTSC color-bar and adjust as step 6.

SUB HUE ADJUSTMENT (SHU)

1. select Video1
2. Input a NTSC color-bar, video into video1.
3. Connect an oscilloscope to the pin ④ (B OUT) of CN117, A board.
4. Select 34 (SHU) with [1] and [4] of the commandar by setting to Service Mode and adjust to VB1=VB2=VB3=VB4 with [3] and [6].



5. Press [MUTING] → [0] of the commander to write the data.
6. Set to WIDE Mode by [MENU] button to write the same value as in step 3.

5-5. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

When replacing IC003(MEMORY) be sure to change IC001(μ-COM) to the following new IC at the same time.

IC001 (μ-COM)

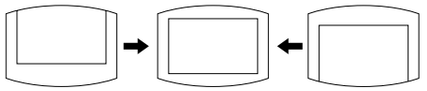
- **GE, EM, E, HK model**
  CXP85340A-072S to CXP85340A-099S (8-752-880-11)
- **ME (Arabic) model**
  CXP85340A-084S to CXP85340A-098S (8-752-879-23)

1. Enter to Service Mode.
2. Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.
3. Call each item number, and check if the respective screen shows the normal picture.
   In cases where items are not well adjusted, rectify the items with fine adjustment.
   Write the data per each item number ([MUTING] +[0]).
4. Select item numbers “95” (OP0) and “96” (OP1) and respectively set the bit per model with command buttons [3] and [6].
5. Press commander buttons [8] and [0] (Test Normal) to return to the data that was set on the shipment from the factory.
   (This will also cancel Service Mode.)

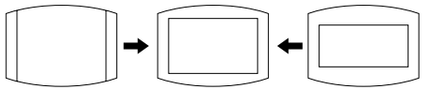
5-6. PICTURE DISTORTION ADJUSTMENT

Item Number 00 – 0B

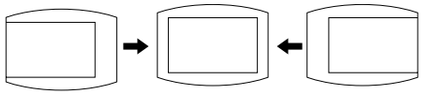
00 VSH(V POSITION)



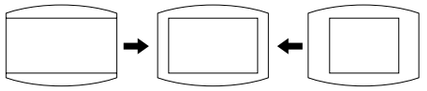
01 VSZ(V SIZE)



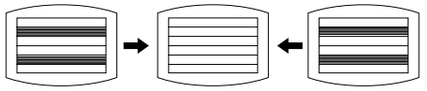
02 HSH(H POSITION)



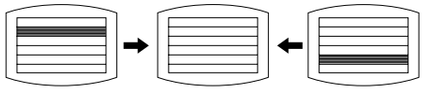
03 HSZ (H SIZE)



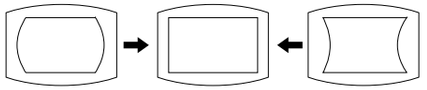
04 SCR(VERTICAL Scorrection)



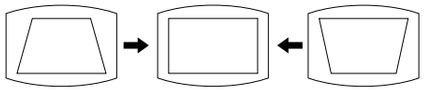
05 VLN(V LINEARITY)



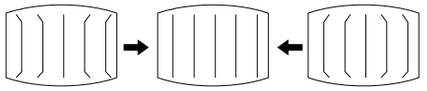
06 PAP (PIN AMP)



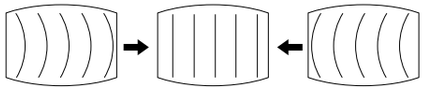
07 PPH(PIN PHASE)



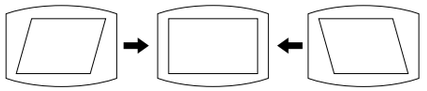
08 UCP(Upper Corner Pin)
09 LCP(Lower Corner Pin)



0A VBOW(AFC.BOW)

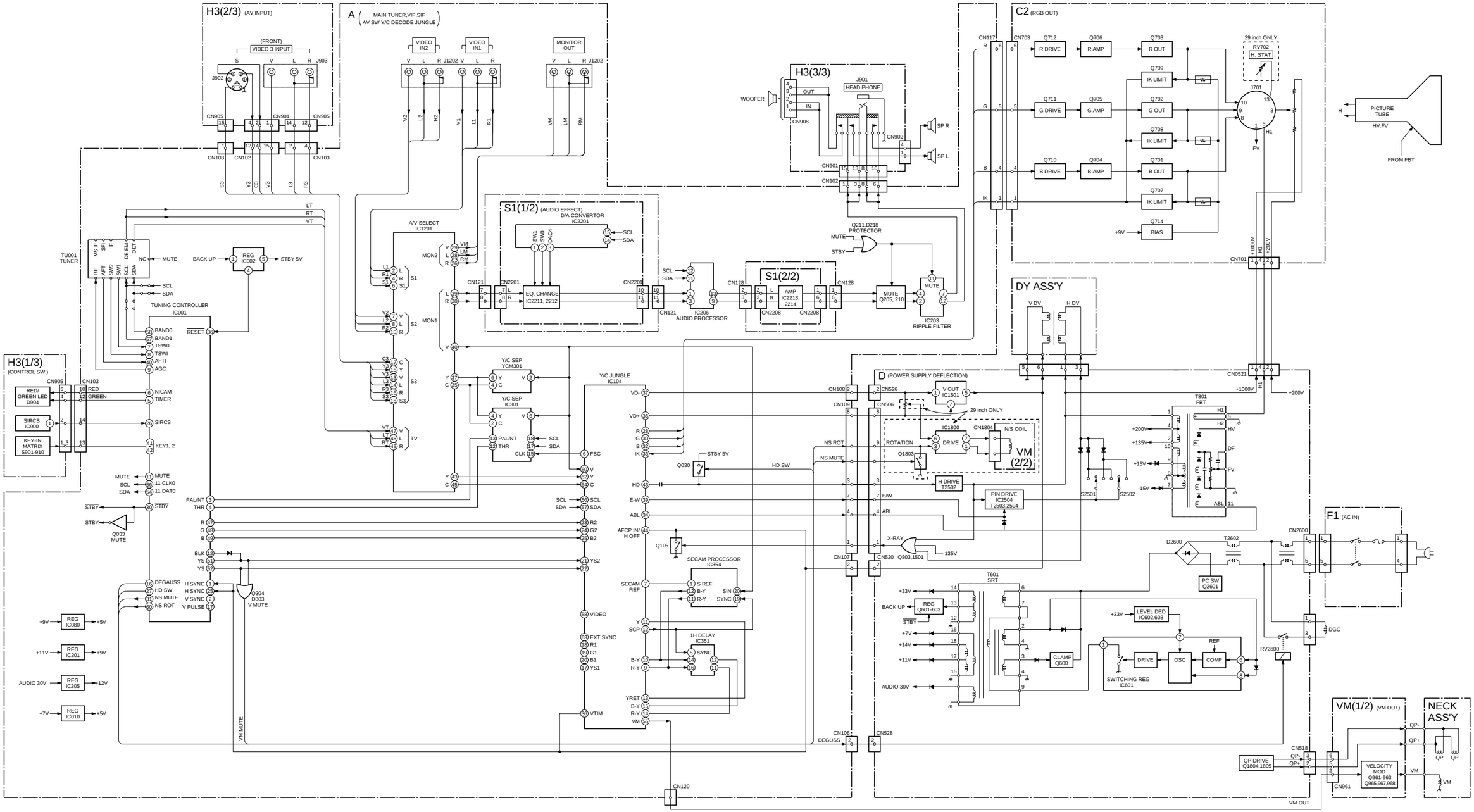


0B VAG(AFC.ANGLE)

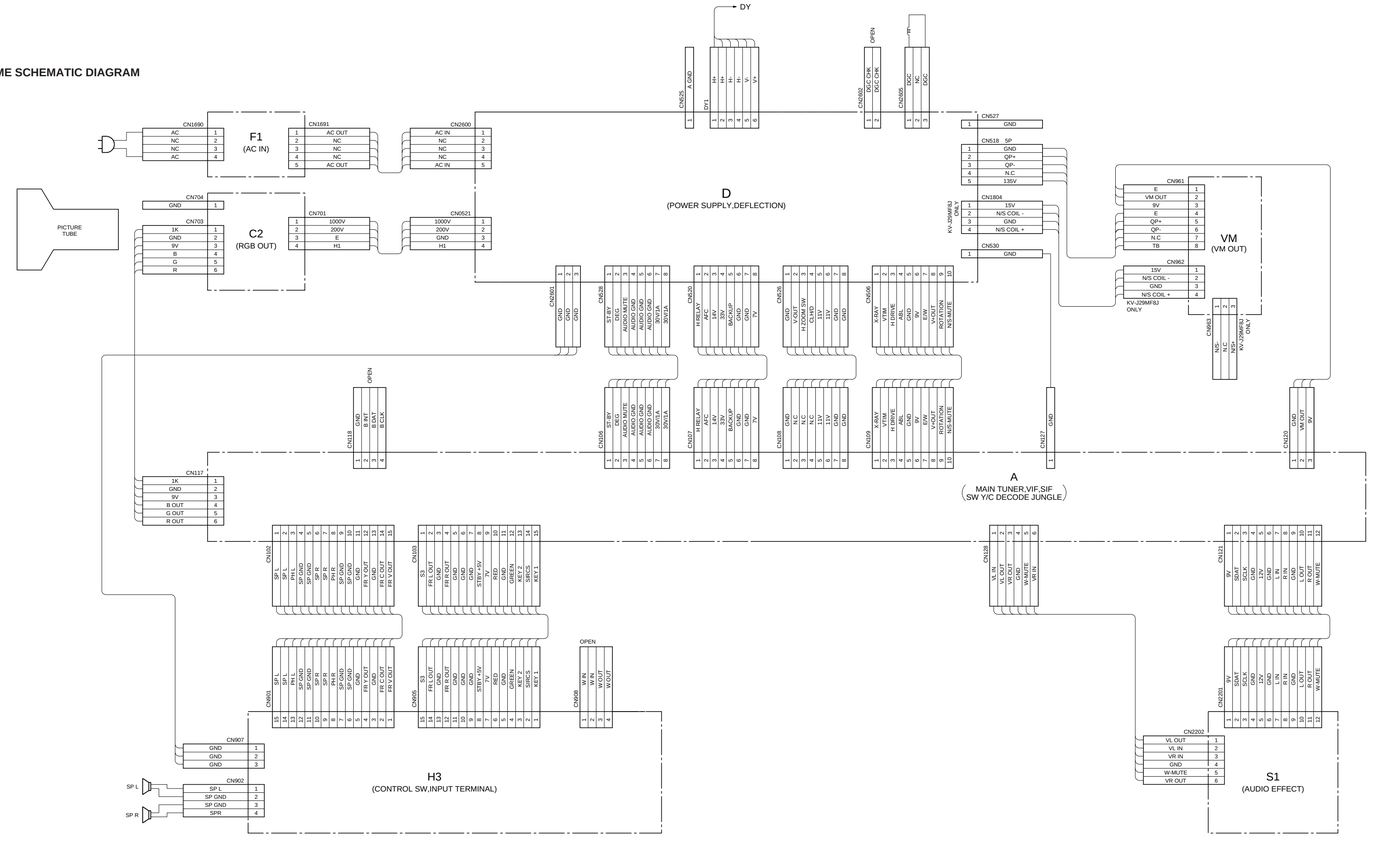


SECTION 6
DIAGRAMS

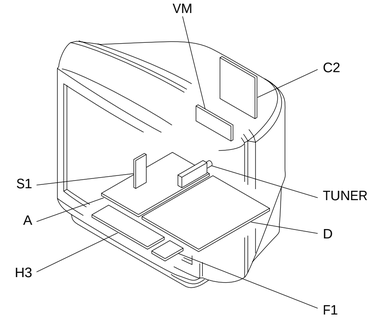
6-1. BLOCK DIAGRAM



6-2. FRAME SCHEMATIC DIAGRAM


DY
CN635 A.GND
CN701 1000V 200V E H1
CN521 1000V 200V E H1
CN1690 AC NC NC AC
F1 (AC IN)
CN1693 AC OUT NC NC NC AC OUT
CN2500 AC IN NC NC NC AC IN
CN704 GND
CN703 1K GND 9V B G R
C2 (RGB OUT)
PICTURE TUBE
D (POWER SUPPLY,DEFLECTION)
CN527 GND
CN518 SP GND QP+ QP- 135V
CN1804 15V N/S COIL - GND N/S COIL +
CN530 GND
KV-20SMF8J ONLY
CN961 E VM OUT 9V E QP+ QP- N.C TB
CN962 15V N/S COIL - GND N/S COIL +
KV-20SMF8J ONLY
VM (VM OUT)
CN603 N/S- N/S+ KV-20SMF8J ONLY
CN601 GND GND GND
CN628 ST BY CKO AUDIO MUTE AUDIO GND AUDIO GND 30V/1A 30V/1A
CN620 H RELAY +B +5V 5V BACKUP GND GND 7V
CN636 GND V.OUT V.OUT SUB BRT CLHPD 11V GND GND
CN606 V.RAY V.FBK H.DRIVE GND GND 8.5V V.OUT SUB BRT N/S.MUTE
CN635 GND VA.OUT 9V
CN618 GND B.INT B.EXT B.CKO
CN606 ST BY CKO AUDIO MUTE AUDIO GND AUDIO GND 30V/1A 30V/1A
CN607 H RELAY +B +5V 5V BACKUP GND GND 7V
CN608 GND N.C N.C 11V GND GND
CN609 V.RAY H.DRIVE GND GND 8.5V V.OUT SUB BRT N/S.MUTE
CN627 GND
A (MAIN TUNER,VIF,SIF SW Y/C DECODE JUNGLE)
CN117 1K GND 9V B OUT G OUT R OUT
CN102 SP L SP R PHL PHR SP GND SP GND SP R SP L PHR PHL SP GND SP GND FR V OUT GND FR H OUT FR V OUT
CN103 S3 FR L OUT FR R OUT GND GND STBY 5V 7V GND GND KEY1 KEY2 SIRCS KEY 4
CN138 VL IN VL OUT GND W.MUTE VR IN
CN121 9V SCL SDA 12V GND GND R IN L IN L OUT R OUT W.MUTE
CN601 SP L SP R PHL PHR SP GND SP GND SP R SP L PHR PHL SP GND SP GND FR V OUT GND FR H OUT FR V OUT
CN605 S3 FR L OUT FR R OUT GND GND STBY 5V 7V GND GND KEY1 KEY2 SIRCS KEY 4
CN608 OPEN W.IN W.MUTE W.OUT
CN201 9V SCL SDA 12V GND GND R IN L IN L OUT R OUT W.MUTE
CN2202 VL OUT VL IN VR IN GND W.MUTE VR OUT
S1 (AUDIO EFFECT)
CN907 GND GND GND
CN902 SP L SP GND SP GND SPR
SP L
SP R
H3 (CONTROL SW,INPUT TERMINAL)

6-2. CIRCUIT BOARDS LOCATION



6-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted.
- All electrolytic capacitors are rated at 50V unless otherwise noted.
- All resistors are in ohms.
  kΩ = 100Ω, MΩ = 1000kΩ
- Indication of resistance, which does not have one for rating electrical power, is as follows.
  Pitch: 5 mm
  Rating electrical power 1/4W (CHIP: 1/10W)
- : nonflammable resistor.
- : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Readings are taken with a color-bar signal input.
  no mark : PAL
  ( ) : SECAM
  [ ] : NTSC 3.58
  « » : NTSC 4.43
- Readings are taken with a 10 MΩ digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- ∗ : Can not be measured.
- Circled numbers are waveform reference.
- : B + bus.
- : B – bus.
- : signal path.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFRAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: *	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

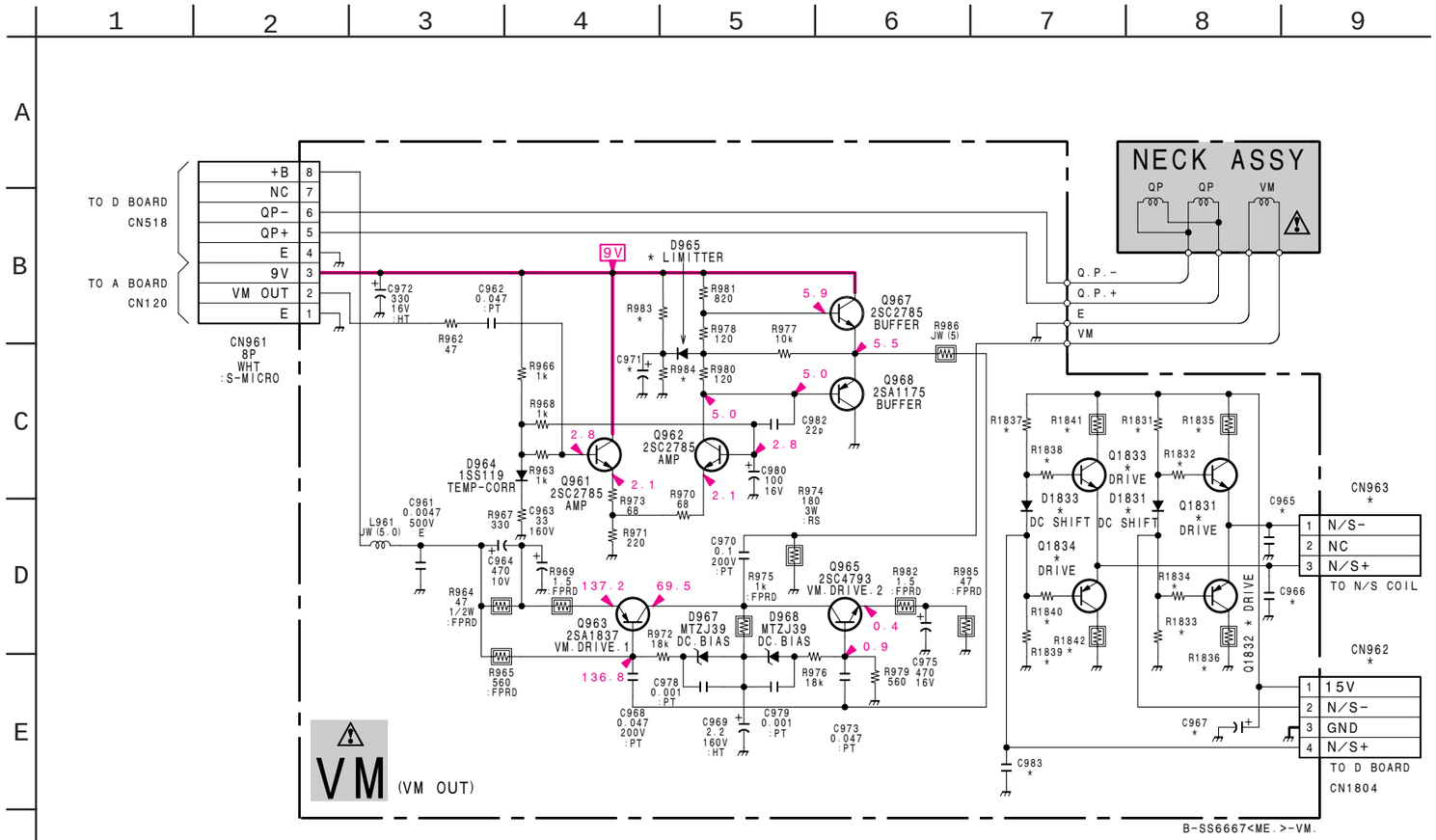
Note:The component identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Terminal name of semiconductors in silk screen printed circuit ( )

	Device	Printed symbol	Terminal name	Circuit
①	Transistor		Collector / Base / Emitter	
②	Transistor		Collector / Base / Emitter	
③	Diode		Cathode / Anode	
④	Diode		Cathode / Anode / (NC)	
⑤	Diode		Cathode / Anode / (NC)	
⑥	Diode		Common Anode / Cathode	
⑦	Diode		Common Anode Cathode	
⑧	Diode		Common Anode / Anode	
⑨	Diode		Common Anode Anode	
⑩	Diode		Common Cathode / Cathode	
⑪	Diode		Common Cathode Cathode	
⑫	Transistor (FET)		Drain / Source / Gate	
⑬	Transistor (FET)		Drain / Source / Gate	
⑭	Transistor (FET)		◻ Source ◻ Drain ◻ Gate	
⑮	Transistor			
⑯	Transistor			
⑰	Transistor			
⑱	Transistor			
⑲	Transistor			
⑳	Transistor			
㉑	Transistor			
–	Discrete semiconductor			

(Chip semiconductors that are not actually used are included.)

(5) Schematic Diagram of VM Board



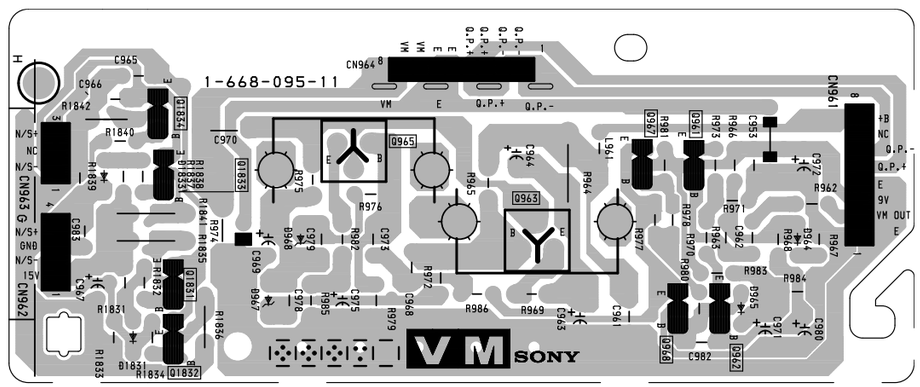
VM BOARD*MARK LIST

	KV-J25MF8J	KV-J29MF8J
C965	#	0.0022 50V
C966	#	0.0022 50V
C967	#	10 50V
C971	#	1 50V
C983	#	0.082 50V
CN962	#	4P WHT : S-MICRO
CN963	#	3P BLK : S-MICRO
D965	#	1SS119-25TD
D1831	#	1SS119-25TD
D1833	#	1SS119-25TD
Q1831	#	2SD773-T-34
Q1832	#	2SB733-T-34
Q1833	#	2SD773-T-34
Q1834	#	2SB733-T-34
R983	#	56k 1/4W
R984	#	82k 1/4W
R1831	#	1k 1/4W
R1832	#	1k 1/4W
R1833	#	1k 1/4W
R1834	#	1k 1/4W
R1835	#	15 1/2W : FPRD
R1836	#	10 1/4W : FPRD
R1837	#	1k 1/4W
R1838	#	1k 1/4W
R1839	#	1k 1/4W
R1840	#	1k 1/4W
R1841	#	15 1/2W : FPRD
R1842	#	10 1/4W : FPRD

Mark : not mounted

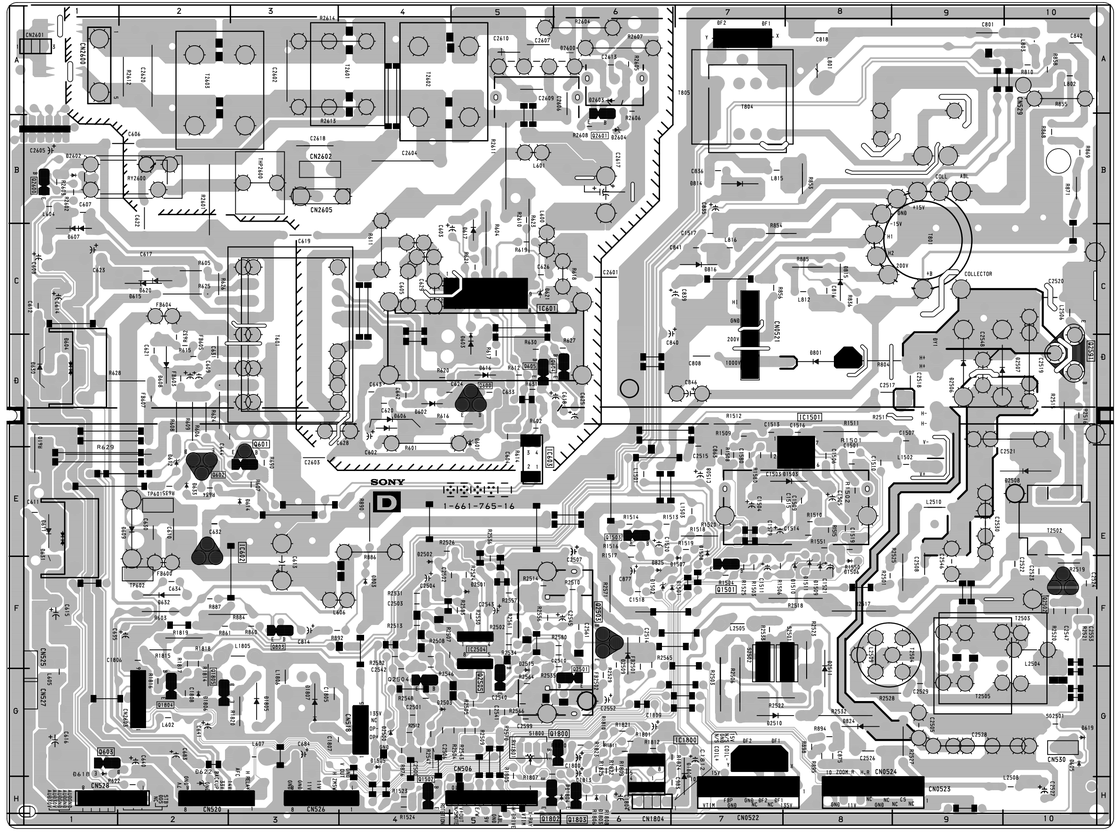
VM [VM OUT]

-VM BOARD-



Schematic diagrams
← C2 boards

– D Board –



D BOARD

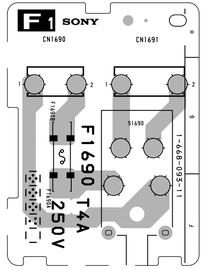
IC	
IC601	C–5
IC602	E–3
IC603	E–5
IC1501	D–8
IC1800	G–7
IC2504	F–5

TRANSISTOR	
Q600	D–5
Q601	E–3
Q602	E–2
Q603	G–1
Q803	F–3
Q1501	F–7
Q1502	H–4
Q1800	G–6
Q1802	H–5
Q1803	H–6
Q1804	G–2
Q1805	G–2
Q2502	F–10
Q2503	F–6
Q2591	D–10
Q2600	B–1
Q2601	B–6

DIODE	
D601	D–5
D602	D–4
D603	D–5
D604	D–1
D605	G–10
D606	D–4
D608	D–2
D609	E–2
D611	E–1
D612	E–2
D614	E–3
D616	D–5
D617	C–5
D618	G–1
D619	G–10
D621	C–5
D633	E–2
D801	D–8
D803	F–4
D814	B–7
D815	C–8
D816	C–7
D824	G–8
D825	F–6
D1501	F–7
D1502	F–6
D1503	E–8
D1504	E–8
D1505	G–4
D1506	F–8
D1509	F–8
D1510	F–8
D1511	F–8
D1803	H–6
D1804	H–6
D1805	G–3
D1806	G–2
D1808	H–7
D2500	G–4
D2501	F–5
D2502	F–4
D2506	D–9
D2507	D–10
D2508	E–10
D2510	G–7
D2511	F–8
D2515	G–5
D2600	A–6
D2602	B-1
D2603	A–6
D2604	B–6

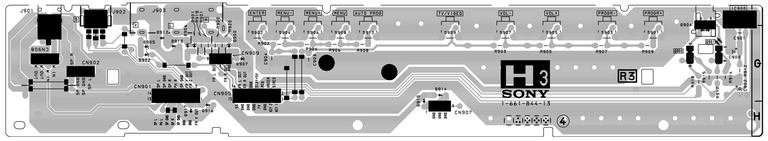
VARIABLE RESISTOR	
RV1801	G–5

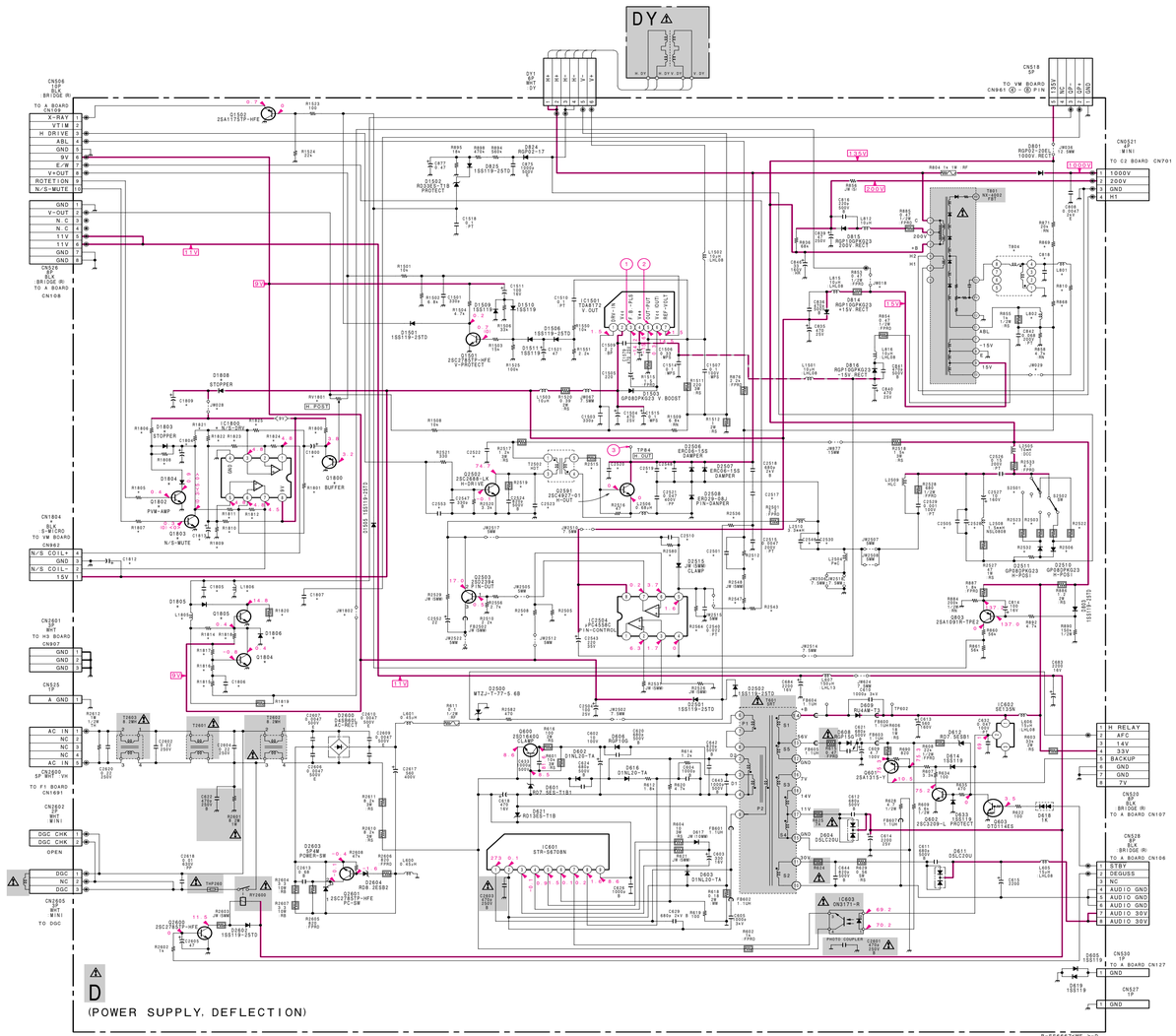
– F1 Board –



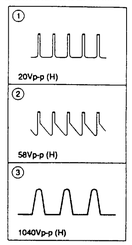
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

– H3 Board –





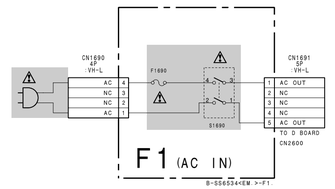
D BOARD WAVEFORMS

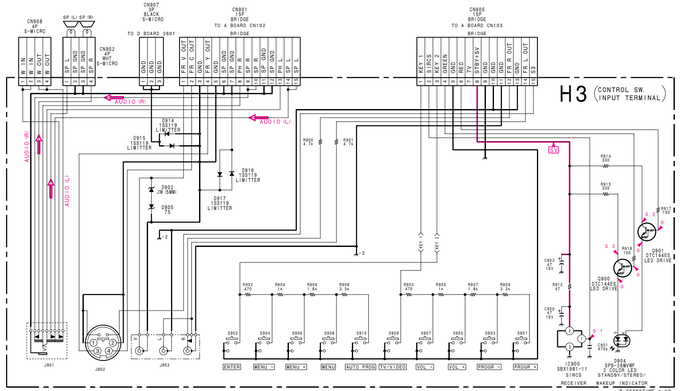


D BOARD ✱ MARK LIST

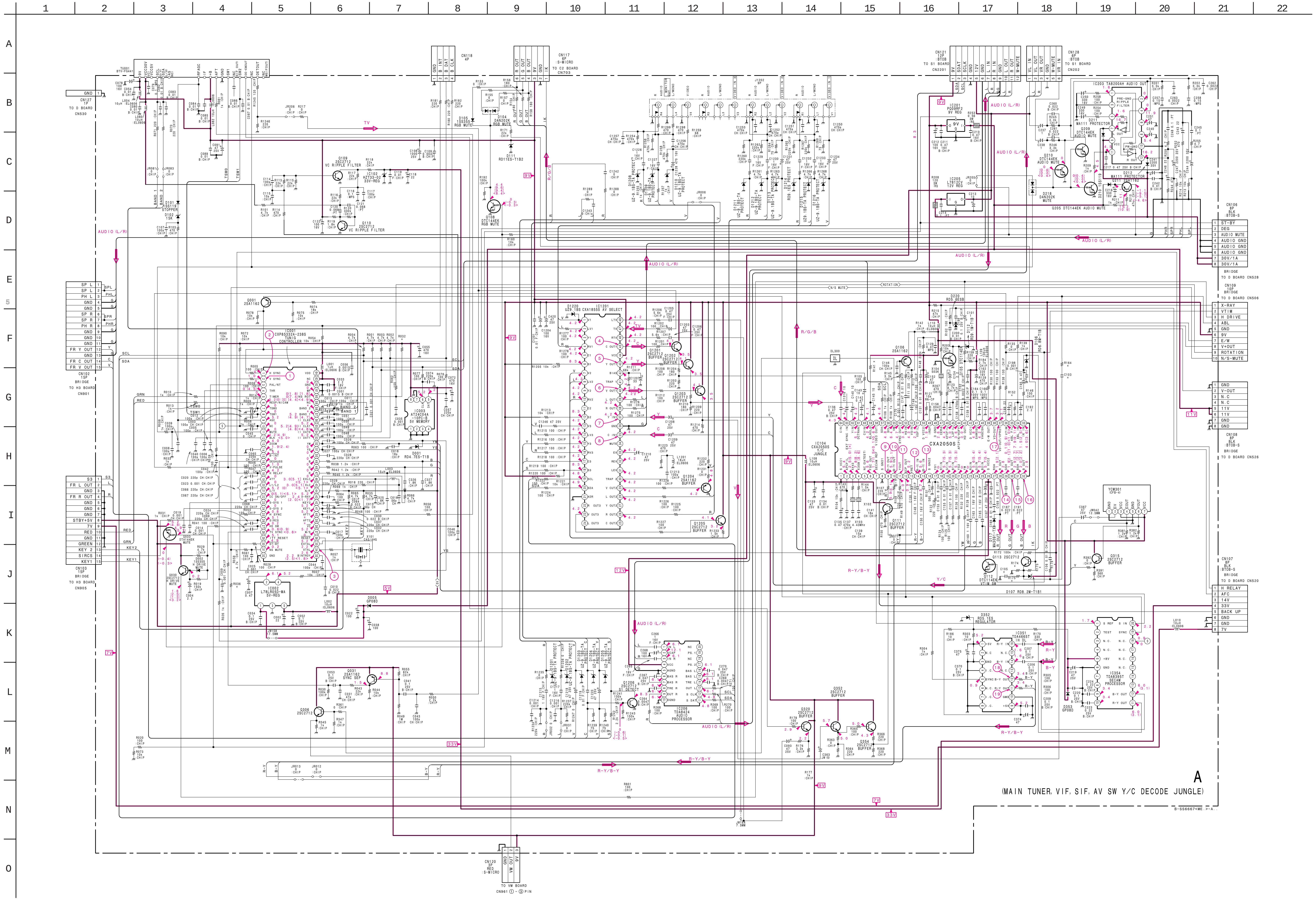
	KV-J25MF8J	KV-J29MF8J
C818	#	0.047 630V : PP
C1800	#	10 50V
C1804	#	10 50V
C1805	#	0.047 200V : PP
C1806	#	0.015 50V : MPS
C1807	#	0.68 50V : MPS
C1809	#	1000 25V
C1812	#	22 50V
C1813	#	10 50V
C2501	0.22 50V : PT	#
C2505	#	0.1 200V : PP
C2510	0.0027 50V : PT	0.0022 50V : PT
C2517	330p 2kV B	680p 2kV B
C2519	0.017 2kV : PP	16000p 2kV : PP
C2520	680p 2kV B	330p 2kV B
C2522	0.01 200V : PT	0.047 200V : PT
C2523	680p 50V B	#
C2528	1.8 200V : PP	1.2 200V : PP
C2530	0.91 200V : PP	0.82 200V : PP
C2546	#	0.047 400V
C2548	560p 2kV B	#
C2553	#	220p 50V B
CN1804	#	4P BLK : S-MICRO
D1803	#	1SS119-25TD
D1804	#	1SS119-25TD
D1805	#	RGP10GPKG23
D1806	#	1SS119-25TD
D1808	#	GP08DPKG23
IC1800	#	M5216P
JW018	#	10.0MM
JW026	#	7.5MM
JW029	#	10.0MM
JW064	#	7.5MM
JW083	#	10.0MM
JW1802	#	5.0MM
L801	#	: CD1
L802	47k 1/4W	2.2mmH : EL0606
L1805	#	10mmH
L1806	#	3.3mmH
Q1800	#	2SA1175TP-HFE
Q1802	#	2SC2785TP-HFE
Q1803	#	2SC2785TP-HFE
Q1804	#	2SC2785TP-HFE
Q1805	#	2SC2958-TL
R810	#	33 1/4W
R868	18k 1/4W : RN	22k 1/4W : RN
R869	20k 1/4W : RN	22k 1/4W : RN
R1800	#	1k 1/4W
R1801	#	5.6k 1/4W
R1805	#	10k 1/4W
R1806	#	4.7k 1/4W
R1807	#	10k 1/4W
R1808	#	4.7k 1/4W
R1809	#	33k 1/4W
R1810	#	33k 1/4W
R1811	#	33k 1/4W
R1812	#	33k 1/4W
R1814	#	10k 1/2W
R1815	#	10k 1/2W
R1816	#	3.3k 1/4W
R1817	#	100k 1/4W
R1818	#	2.2k 1/4W
R1819	#	100 2W : FPRD
R1820	#	1.8k 1W : RS
R1821	#	33k 1/4W
R1822	#	33k 1/4W
R1823	#	5.6k 1/4W
R1824	#	33k 1/4W
R1825	#	3.3k 1/4W
R2503	JW (15.0MM)	68 3W : RS
R2505	560 1/4W	1.5k 1/4W
R2506	JW (20.0MM)	56 3W : RS
R2508	2.2k 1/4W	1.8k 1/4W
R2512	56k 1/4W	220k 1/4W
R2515	0.22 1W : RS	0.39 1W : RS
R2519	5.6k 1/4W : FPRD	4.7k 1/4W : FPRD
R2522	#	180 2W : RS
R2523	#	220 2W : RS
R2532	68 3W : RS	JW (15.0MM)
R2536	3.9k 1/4W	2.7k 1/4W
R2543	3.9k 1/4W	4.7k 1/4W
R2547	180k 1/4W	0.047 50V : PT
R2564	2.7k 1/4W	#
R2580	56k 1/4W	82k 1/4W
RV1801	#	47k
S2501	#	1-572-707-21
T804	#	1-413-059-11 (DFT)

Mark : not mounted





(2) Schematic Diagrams of A Board



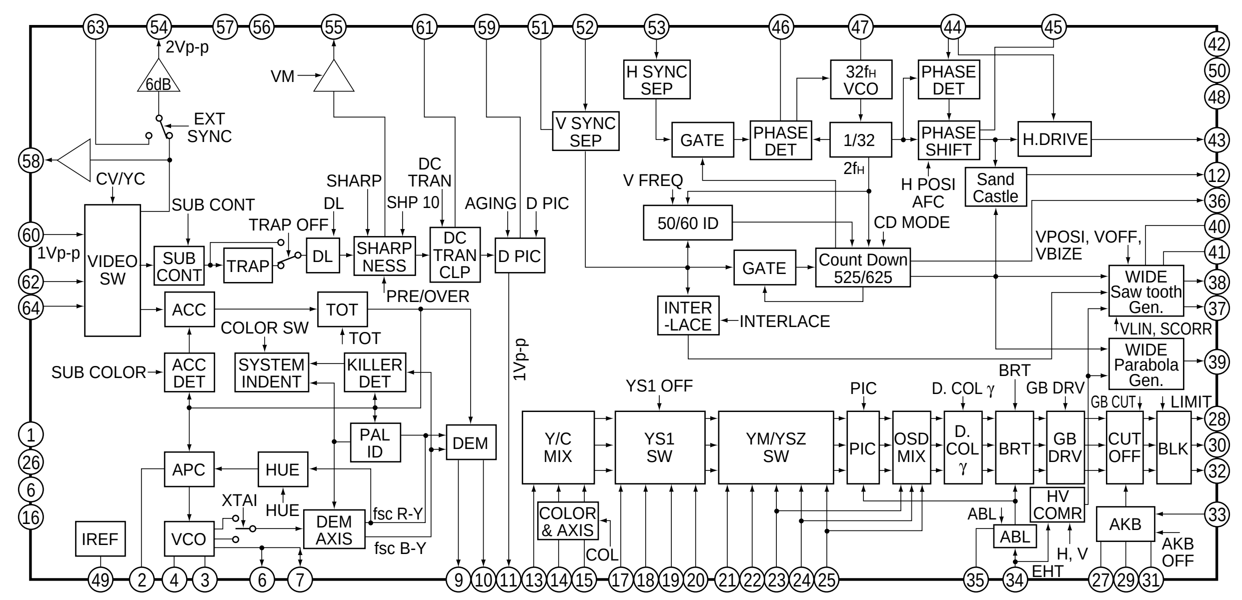
TU001 BTV-FG441
CN127 1P TO D BOARD CN530
CN117 6P :S-MICRO TO C2 BOARD CN703
CN118 4P
CN121 12P :BTOB TO S1 BOARD CN2201
CN128 6P :BTOB TO S1 BOARD CN202
CN102 15P BRIDGE TO H3 BOARD CN901
CN103 15P BRIDGE TO H3 BOARD CN905
CN106 8P BLK :BTOB-S BRIDGE TO D BOARD CN528
CN109 10P BRIDGE TO D BOARD CN506
CN108 8P BLK :BTOB-S BRIDGE TO D BOARD CN526
CN107 8P BLK :BTOB-S BRIDGE TO D BOARD CN520
CN120 3P RED :S-MICRO TO VM BOARD CN961 ①-③ PIN
IC001 CXP85332A-238S TUNIG CONTROLLER
IC002 L78LR05D-MA 5V-REG
IC003 AT24C04A -10PC-B 5V MEMORY
IC102 HZT33-02 33V-REG
IC104 CXA2050S Y/C JUNGLE
IC1201 CXA1855S AV SELECT
IC201 PQ09RF2 9V REG
IC203 TA8200AH AUDIO OUT
IC205 L7812CV 12V REG
IC206 TDA8424 AUDIO PROCESSOR
IC351 TDA4665T IH DL
IC354 TDA8395T SECAM PROCESSOR
J1202 9P
A
(MAIN TUNER, VIF, SIF, AV SW Y/C DECODE JUNGLE)
B-SS6667<ME.>-A..

A BOARD *MARK LIST

	KV-J25MF8J	KV-J29MF8J
C103	0.047 50V : CHIP	#
C105	0.056 25V B : CHIP	470p 50V B : CHIP
C1259	100p 50V : CHIP	#
R032	#	4.7k :CHIP
R036	#	4.7k :CHIP
R141	330k :CHIP	#
R152	4.7k :CHIP	#
R164	120k :CHIP	#
R173	22k :CHIP	#
R174	330k :CHIP	220k :CHIP
R175	18k :CHIP	10k :CHIP
R179	820k :CHIP	4.7M :CHIP

Mark : not mounted

A BOARD IC104 CXA2050S



2Vp-p
6dB
EXT SYNC
VM
CV/YC
VIDEO SW
1Vp-p
SUB CONT
TRAP OFF
TRAP
DL
SHARP DL
SHARP NESS
SHP 10
DC TRAN
DC TRAN CLP
AGING
D PIC
PRE/OVER
ACC
TOT
COLOR SW
SUB COLOR
ACC DET
SYSTEM INDENT
KILLER DET
PAL ID
DEM
APC
HUE
XTAI
VCO
DEM AXIS
fsc R-Y
fsc B-Y
IREF
V SYNC SEP
H SYNC SEP
GATE
PHASE DET
32fH VCO
1/32
2fH
PHASE SHIFT
H.DRIVE
H POSI AFC
Sand Castle
V FREQ
50/60 ID
CD MODE
Count Down 525/625
INTER -LACE
INTERLACE
VPOSI, VOFF, VBIZE
WIDE Saw tooth Gen.
VLIN, SCORR
WIDE Parabola Gen.
YS1 OFF
Y/C MIX
YS1 SW
YM/YSZ SW
COLOR & AXIS
COL
PIC
OSD MIX
D. COL γ
BRT
GB DRV
GB CUT
CUT OFF
LIMIT
BLK
HV COMR
ABL
EHT
H, V
AKB
AKB OFF

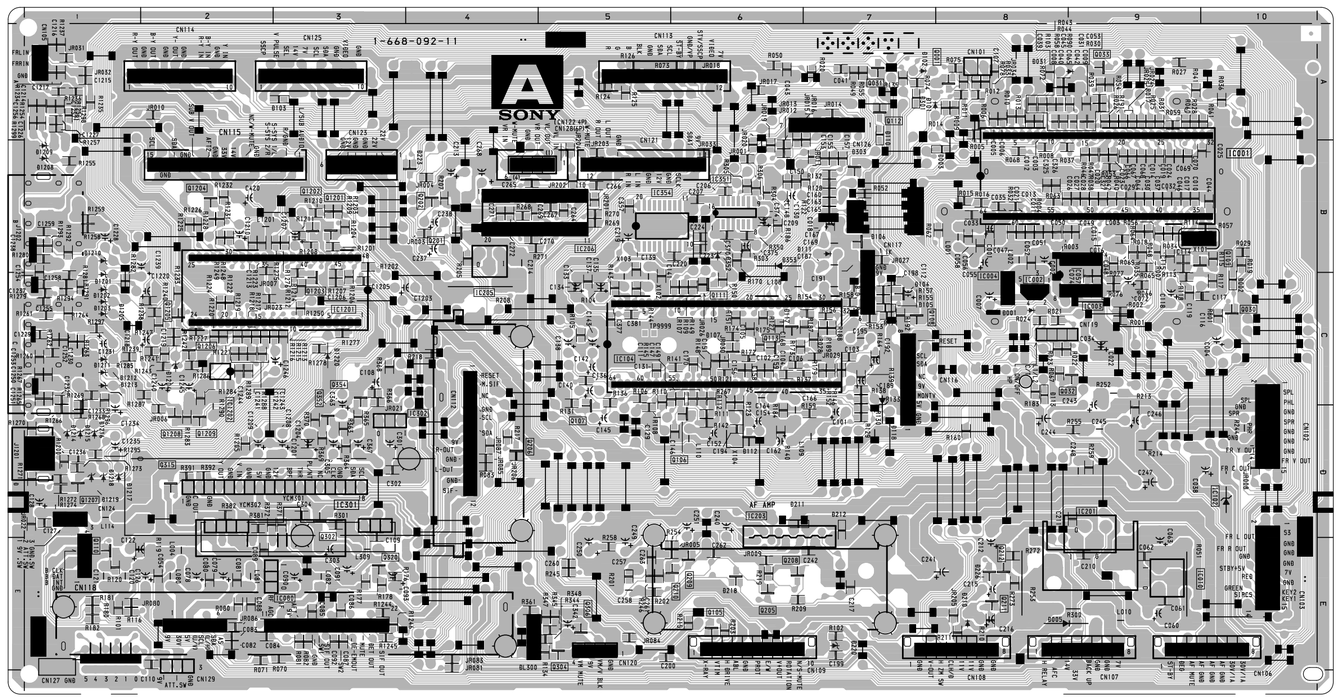
Schematic diagrams
← D F1 F3 boards

Schematic diagram
A board →

A BOARD WAVEFORMS

① 5Vp-p (V)	② 3.8Vp-p (H)	③ 5Vp-p (H)	④ 0.8Vp-p (H)	⑤ PAL/SECAM 1.8Vp-p (H)
⑤ NTSC 1.8Vp-p (H)	⑥ PAL 1.8Vp-p (H)	⑥ SECAM 1.8Vp-p (H)	⑥ NTSC 1.8Vp-p (H)	⑦ PAL/SECAM 1.8Vp-p (H)
⑦ NTSC 1.8Vp-p (H)	⑧ 0.7Vp-p (H)	⑨ PAL/SECAM 0.7Vp-p (H)	⑨ NTSC 0.7Vp-p (H)	⑩ PAL/SECAM 0.8Vp-p (H)
⑩ NTSC 0.8Vp-p (H)	⑪ PAL/SECAM 1.2Vp-p (H)	⑪ NTSC 1.2Vp-p	⑫ PAL/SECAM 1.2Vp-p (H)	⑫ NTSC 1.2Vp-p (H)
⑬ PAL/SECAM 1.6Vp-p (H)	⑬ NTSC 1.6Vp-p (H)	⑭ PAL/SECAM 2.4Vp-p (H)	⑭ NTSC 2.4Vp-p (H)	⑮ PAL/SECAM 2.4Vp-p (H)
⑮ NTSC 2.4Vp-p (H)	⑯ PAL/SECAM 2.4Vp-p (H)	⑯ NTSC 2.4Vp-p (H)	⑰ 1.3Vp-p (V)	⑱ PAL/SECAM 1.8Vp-p
⑱ NTSC 1.8Vp-p	⑲ PAL/SECAM 1.4Vp-p (H)	⑲ NTSC 1.4Vp-p (H)		

– A Board –



A BOARD

IC

IC001	B–9	
IC002	C–8	
IC003	C–9	
IC102	D–10	
IC104	C–5	
IC201	D–9	
IC203	D–6	
IC205	C–4	
IC206	B–5	
IC351	B–6	
IC354	B–5	
IC1201	C–3	

TRANSISTOR

Q001	A–8	① *
Q030	C–10	①
Q031	A–7	①
Q033	A–9	①
Q105	E–6	①
Q106	D–6	①
Q108	C–7	①
Q109	B–10	①
Q110	E–1	①
Q111	C–6	①
Q112	A–7	①
Q113	C–6	①
Q205	E–6	①
Q209	E–6	①
Q210	E–6	①
Q211	E–8	①
Q306	E–5	①
Q315	D–2	①
Q320	E–3	①
Q352	D–3	①
Q354	C–3	①
Q1201	B–3	①
Q1202	B–3	①
Q1203	C–3	①
Q1204	B–2	①
Q1205	C–2	①
Q1206	C–2	①

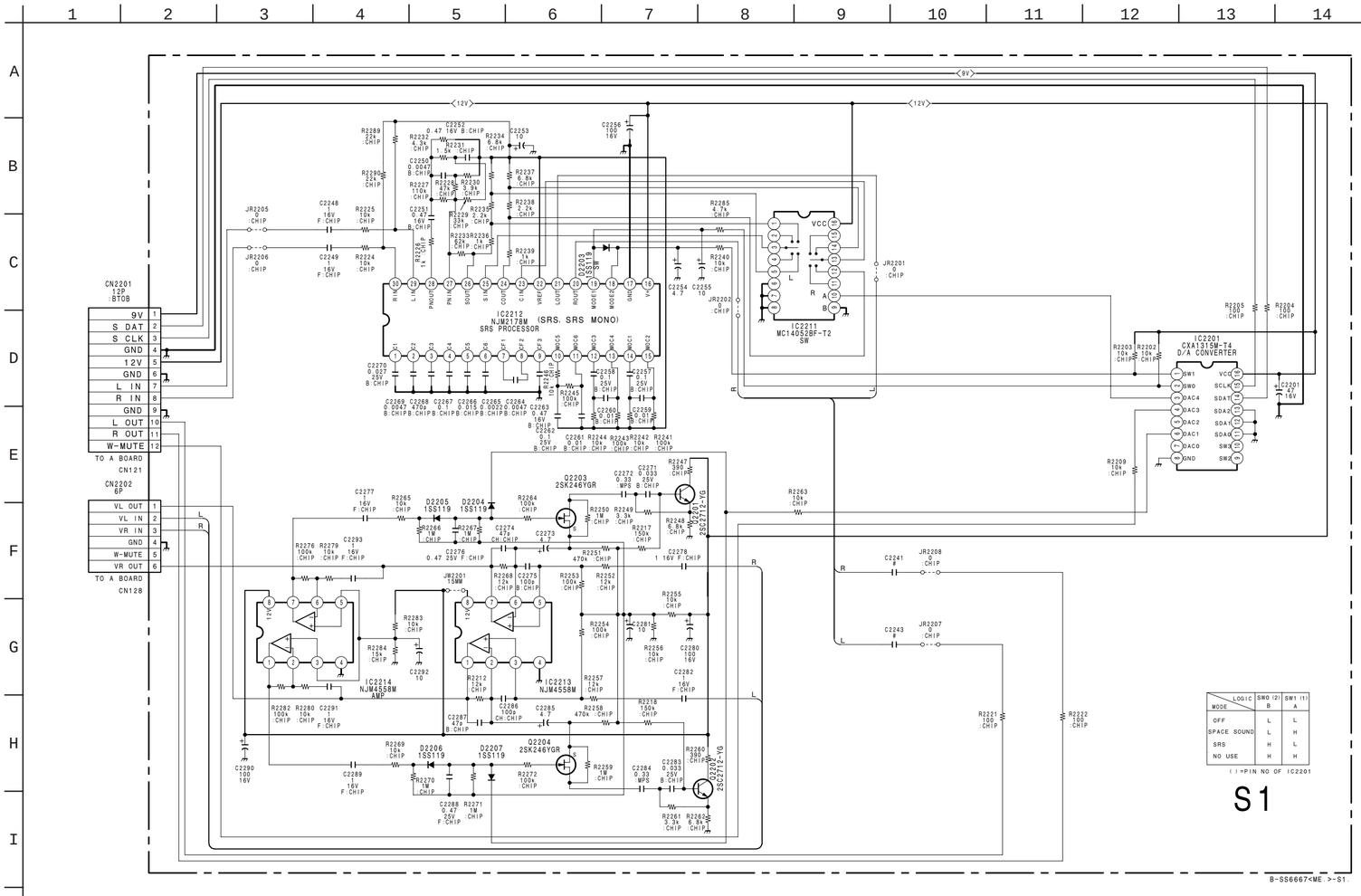
DIODE

D001	C–8	- *
D002	C–10	③
D005	E–8	-
D101	A–7	-
D102	A–7	-
D103	A–3	③
D104	C–7	⑥
D105	C–7	③
D106	B–7	④
D107	C–6	④
D111	B–7	-
D112	D–6	④
D117	C–6	③
D210	E–8	-
D211	D–6	③
D212	D–7	③
D218	E–6	⑥
D220	E–7	-
D352	B–6	-
D353	B–6	-
D1201	C–1	-
D1202	C–1	-
D1203	C–1	-
D1204	C–2	-
D1205	C–1	-
D1208	B–1	-
D1209	B–1	-
D1210	B–1	-
D1211	C–1	-
D1212	C–1	-
D1213	C–1	-
D1214	D–1	-
D1215	D–1	-
D1216	D–1	-
D1220	C–3	-

OTHER

DL300	E–4
X101	B–9
X102	C–5
X103	B–5
X104	D–6

(3) Schematic Diagram of S1 Board

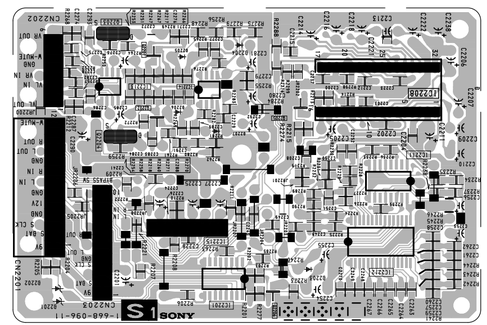


MODE \ LOGIC	SW0 (2) B	SW1 (1) A
OFF	L	L
SPACE SOUND	L	H
SRS	H	L
NO USE	H	H

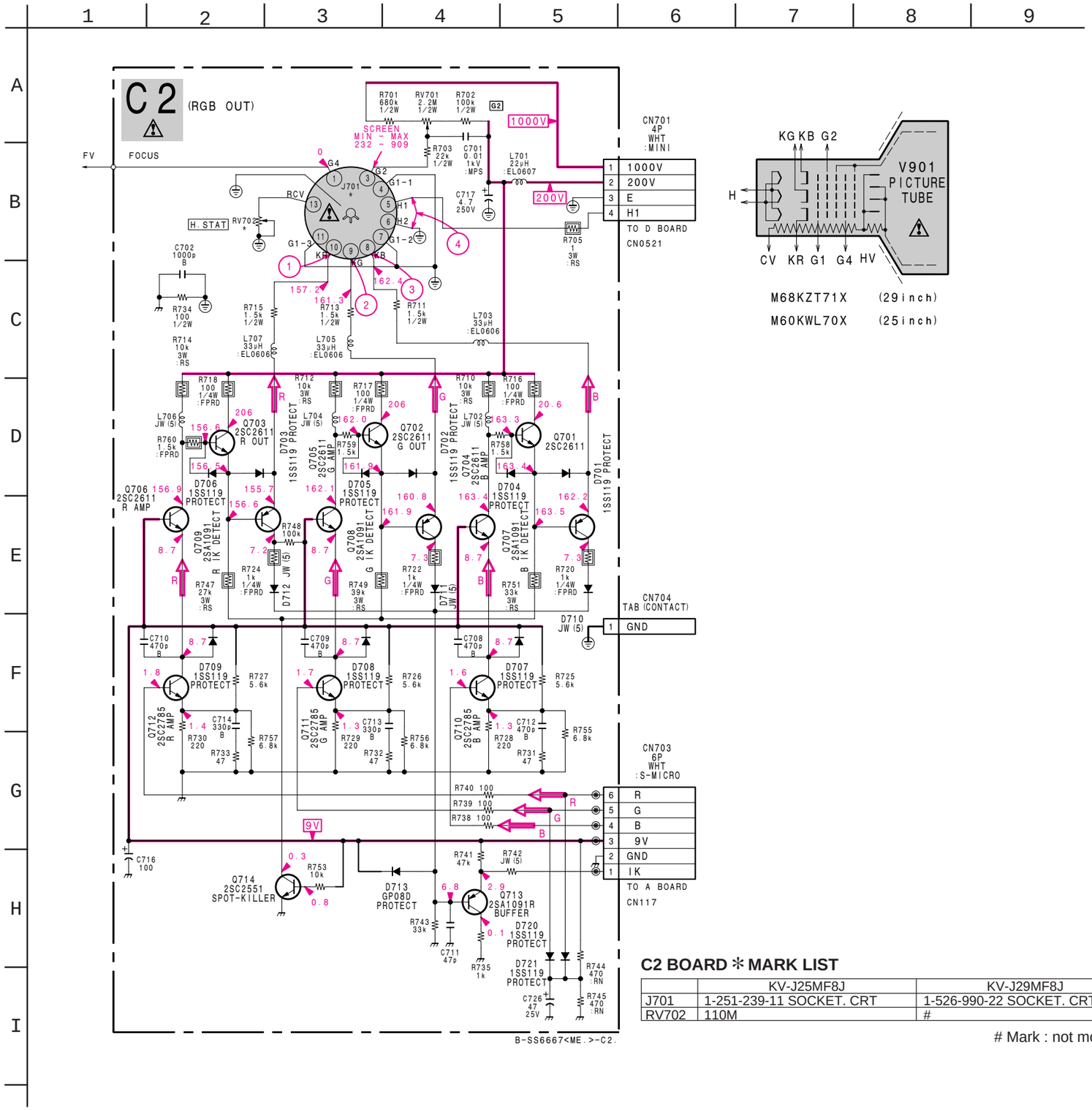
( ) =PIN NO OF IC2201

B-SS6667<ME >-S1

– S1 Board –



(4) Schematic Diagram of C2 Board



C2 [RGB OUT]

C2 BOARD WAVEFORMS

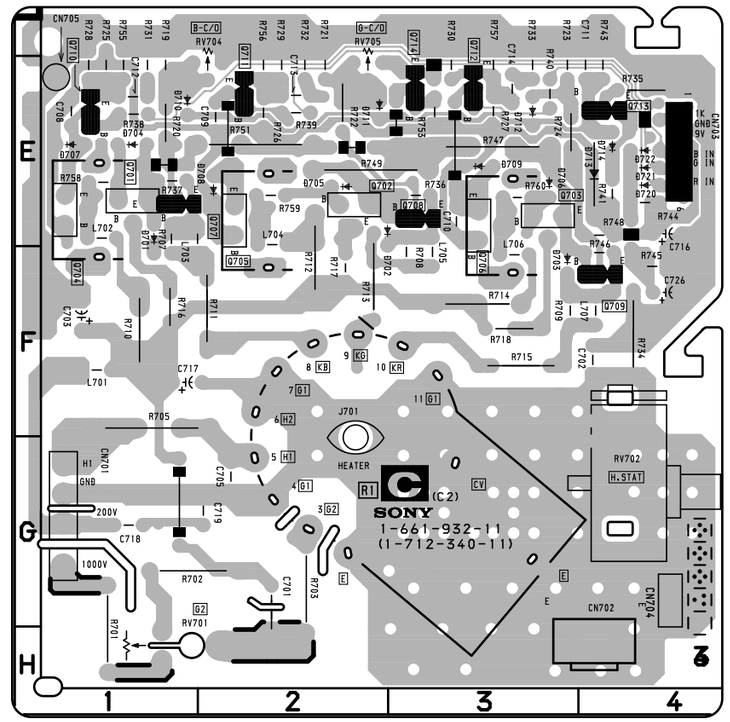
① PAL/SECAM J25MF1/J : 120Vp-p (H) J29MF1/J : 120Vp-p (H)	① NTSC J25MF1/J : 120Vp-p (H) J29MF1/J : 120Vp-p (H)
② PAL/SECAM J25MF1/J : 120Vp-p (H) J29MF1/J : 100Vp-p (H)	② NTSC J25MF1/J : 120Vp-p (H) J29MF1/J : 100Vp-p (H)
③ PAL/SECAM J25MF1/J : 120Vp-p (H) J29MF1/J : 100Vp-p (H)	③ NTSC J25MF1/J : 120Vp-p (H) J29MF1/J : 100Vp-p (H)
④ J25MF1/J : 24Vp-p (H) J29MF1/J : 22Vp-p (H)	

C2 BOARD ✻ MARK LIST

	KV-J25MF8J	KV-J29MF8J
J701	1-251-239-11 SOCKET. CRT	1-526-990-22 SOCKET. CRT
RV702	110M	#

Mark : not mounted

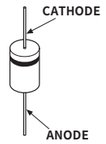
– C2 Board –



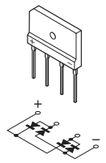
6-5. SEMICONDUCTORS

DIODE

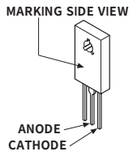
D1NL20
RGP10GPKG23
EL1Z
GP08D
RD5.1ES
RGP02-17EL-6433
RGP02-20EL



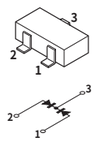
D4SB60L



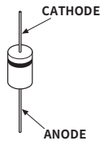
D5LC20U



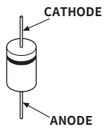
DAN202K



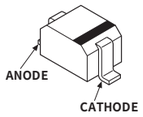
ERC06-15S
RU4AM-T3
S3L20UF4



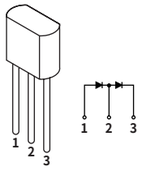
ERD29-08J



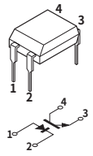
MA111
1SS355



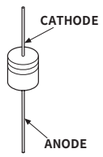
MC932



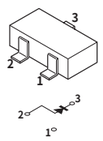
ON3171R



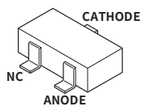
RD30ESB2
RD33ES-B2
RD4.7ESB2
RD5.1ES-B2
RD5.6ES-B1
RD7.5ES-B1
RD8.2ES-B2
RD9.1ES-L



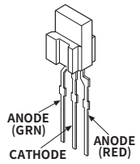
1SS119-25
RD3.6M-B1
MTZJ-T-77-5.6B
RD5.6M-B2
RD6.8M-B3



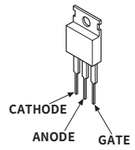
RD6.8M-B



SPB-26MVWF

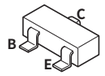


5P-6M

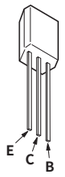


TRANSISTOR

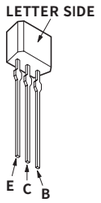
DTA114EK
DTA144EK
DTA144EKA
DTC114EK
DTC124EK
DTC144EK
2SA1162G
2SC1623-L5L6
2SC2712-YG-TE85
2SD601A-Q



DTC114ES
DTC144ES
RN1202



DTC114ESA
2SA1175-HFE
2SA933AS-QRT
2SC2785-HFE



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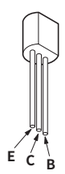
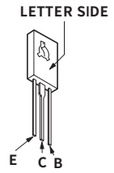
2SC2551-0

2SA1315-Y



2SC2611
2SC2688-LK
2SC3601



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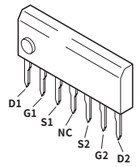

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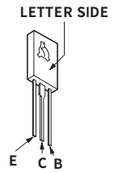
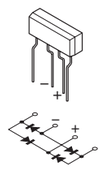
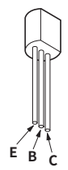


2SD2394-F

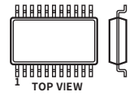


2SK246-YGR-TPE2



IC

CXA1315M-T4
NJM2178M-T2
NJM4558M-T2
TDA8395T

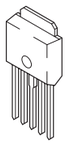


Small Outline L-leaded Package
Pin 8 ~ 98

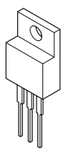
CXA1855S
CXA2050S
CXA85332A-073S
CXP85332A-206S
MC14052BF-T2
MSP3410B
P83C654
SAA5281ZP
ST24C04CB1
TDA4665T-T
TDA8424
UPC4558C
UPC574J

Dual In-line Package
Pin 6 ~ 98

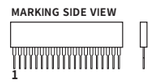
L78LR05D-MA



NJM7805FA
PQ09RF2
TA7812S

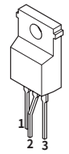


SBX1981-11

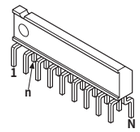


Single In-line Package
Pin 6 ~ 99

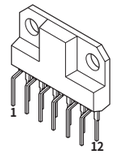
SE135N



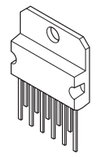
STR-S6708



STR-S6709
TA8200AH



TDA2009A



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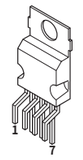


SECTION 7
EXPLODED VIEWS

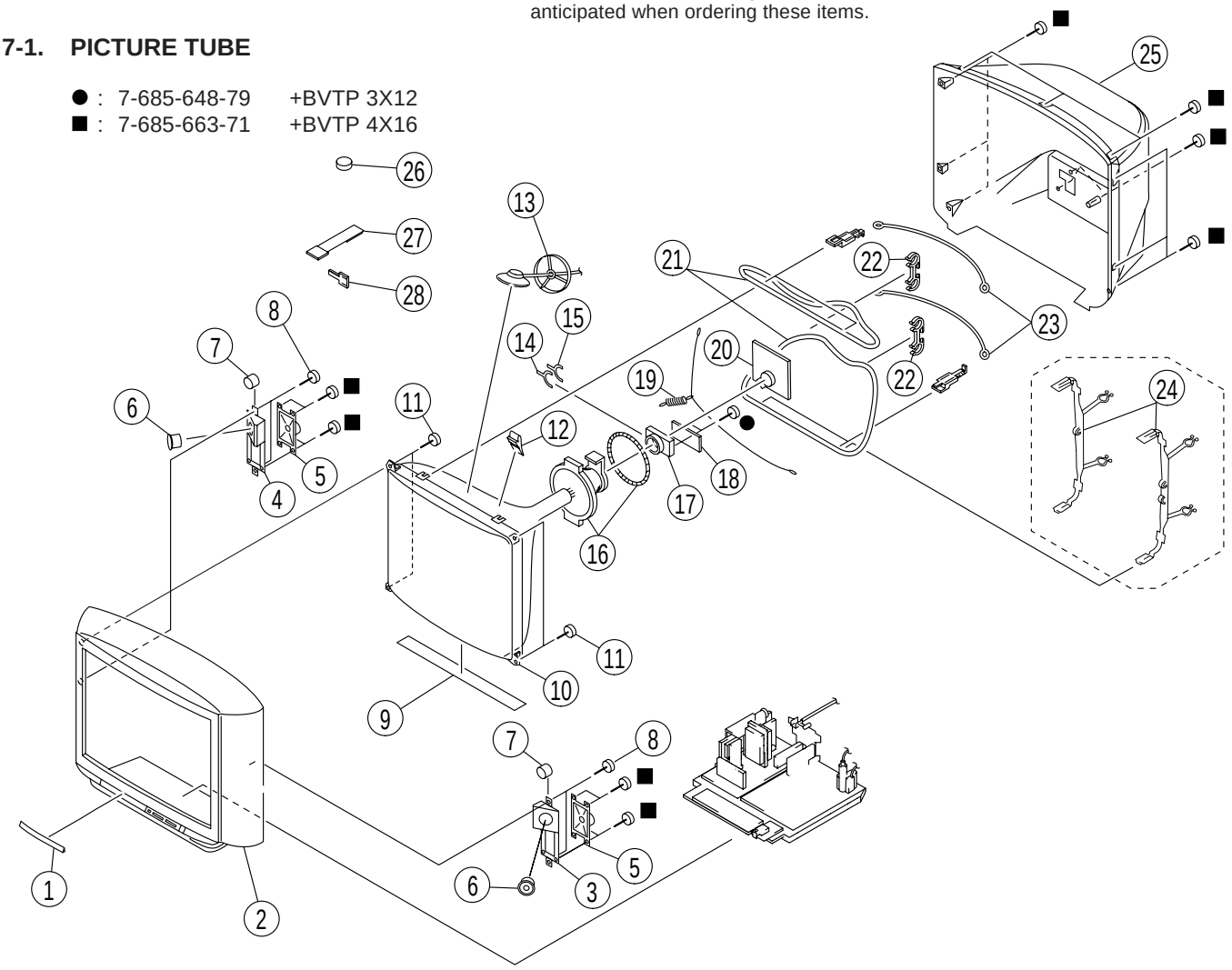
NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-1. PICTURE TUBE

● : 7-685-648-79 +BVTP 3X12
■ : 7-685-663-71 +BVTP 4X16



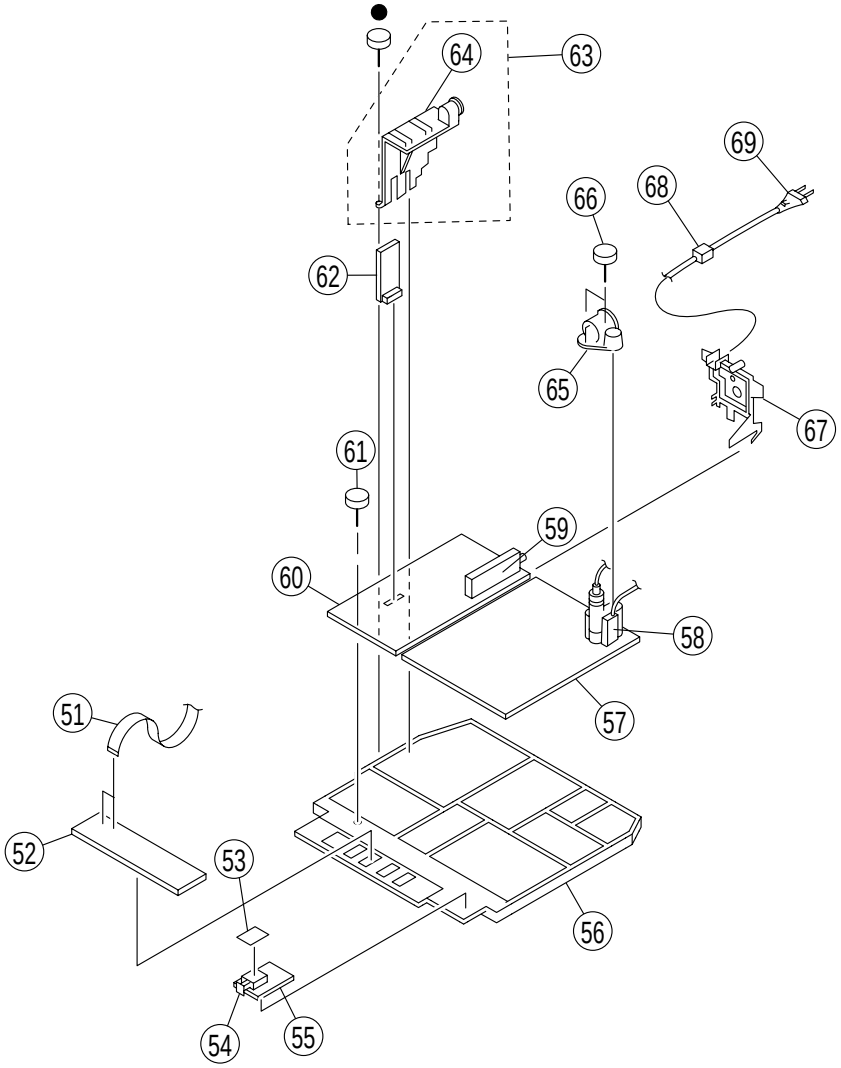
REF. NO.	PART NO.	DESCRIPTION	REMARK
1	4-062-324-61	DOOR, CONTROL (J29MF8J)	
	4-062-324-71	DOOR, CONTROL (J25MF8J)	
2	X-4035-158-1	BEZNET ASSY (J29MF8J)	
	X-4035-164-1	BEZNET ASSY (J25MF8J)	
3	* X-4033-931-2	BRACKET (R) ASSY, SP (J29MF8J)	
	* X-4034-562-1	BRACKET (R) ASSY, SP (J25MF8J)	
4	* X-4033-930-2	BRACKET (L) ASSY, SP (J29MF8J)	
	* X-4034-561-1	BRACKET (L) ASSY, SP (J25MF8J)	
5	1-505-503-11	SPEAKER (15X6.5CM)	
6	1-505-489-11	SPEAKER (5CM) (J29MF8J)	
7	4-374-745-21	CUSHION (A)	
8	4-384-096-01	SCREW, TAPPING (4X16)+W	
9	4-385-725-01	SHEET, BLOTTING	
10	⚠ 8-733-244-05	PICTURE TUBE (M60KWL70X) (J25MF8J)	
	⚠ 8-733-868-05	PICTURE TUBE (M68KZT71X) (J29MF8J)	
11	4-046-765-01	SCREW, TAPPING 7+CROWN WASHER	
12	4-046-600-01	SPACER, DY	
13	3-704-372-01	HOLDER, HV CABLE	
14	1-452-278-22	MAGNET, PURITY (J29MF8J)	
15	1-452-278-32	MAGNET, PURITY (J29MF8J)	
16	⚠ 8-451-404-41	DEFLECTION YOKE (Y25GXAS) (J25MF8J)	

REF. NO.	PART NO.	DESCRIPTION	REMARK
16	⚠ 8-451-467-21	DEFLECTION YOKE (Y29GXA2-S) (J29MF8J)	
17	⚠ 1-452-762-21	NECK ASSEMBLY NA294 (J25MF8J)	
	⚠ 1-452-762-31	NECK ASSEMBLY NA294 (J29MF8J)	
18	* A-1342-393-A	VM BOARD, COMPLETE (J29MF8J)	
	* A-1342-394-A	VM BOARD, COMPLETE (J25MF8J)	
19	4-369-318-00	SPRING, TENSION	
20	* A-1331-604-A	C2 BOARD, COMPLETE (J29MF8J)	
	* A-1331-625-A	C2 BOARD, COMPLETE (J25MF8J)	
21	⚠ 1-403-619-51	COIL, DEMAGNETIZATION (J25MF8J)	
	⚠ 1-403-672-12	COIL, DEMAGNETIZATION (J29MF8J)	
22	* 4-054-297-02	HOLDER, DGC (J29MF8J)	
23	4-043-827-02	BAND, DEGAUSSING COIL	
24	* 4-042-988-02	HOLDER, DGC (J25MF8J)	
25	4-054-484-03	COVER, REAR (J29MF8J)	
	4-054-493-02	COVER, REAR (J25MF8J)	
26	1-452-032-00	MAGNET,DISK ; 10mmø	
27	4-051-737-21	PIECE A(100), CONV. CORRECT	
28	4-034-272-01	PLATE, CORRECTION, TLV	
	4-034-272-11	PLATE, CORRECTION, TLV	
	4-034-272-41	PLATE, CORRECTION, TLV	

7-2. CHASSIS

● : 7-685-648-79 +BVTP 3X12

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.



REF. NO.	PART NO.	DESCRIPTION	REMARK
51	1-777-353-11	CABLE, FLAT	
52	* A-1372-257-A	H3 BOARD, COMPLETE	
53	* 4-055-447-21	SHEET, INSULATING	
54	⚠ 1-571-433-21	SWITCH, PUSH (AC POWER)	
55	* A-1241-319-A	F1 BOARD, COMPLETE	
56	* X-4034-588-4	BRACKET ASSY, MAIN	
57	* A-1346-699-A	D BOARD, COMPLETE (J29MF8J)	
	* A-1346-700-A	D BOARD, COMPLETE (J25MF8J)	
58	⚠ 1-453-227-11	TRANSFORMER ASSY, FLYBACK (NX-4002//M3I4) (J25MF8J)	
	⚠ 1-453-227-21	TRANSFORMER ASSY, FLYBACK (NX-4002//M3I4) (J29MF8J)	
59	⚠ 8-598-375-01	TUNER VSS BTV-FG411	
60	* A-1298-389-A	A BOARD, COMPLETE (J29MF8J)	
	* A-1298-390-A	A BOARD, COMPLETE (J25MF8J)	
61	4-046-797-01	SCREW (3X12), (+)BVTAP	
62	* A-1390-802-A	S1 BOARD, COMPLETE	
63	X-4034-323-1	HOLDER ASSY, PWB (J29MF8J)	64
64	* 4-055-142-02	HOLDER, PC BOARD	
65	* 4-055-139-01	HOLDER, FBT	
66	4-302-428-03	SCREW (WASHER HEAD) (+P 3X12)	
67	4-055-143-11	BRACKET, TERMINAL	
68	4-022-115-00	HOLDER, AC CORD	
69	⚠ 1-574-062-12	CORD, POWER (WITH CONNECTOR) 2.5A/250V	

SECTION 8
ELECTRICAL PARTS LIST

F1 A

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- The components identified by ⋈ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

- CAPACITORS
  PF : μμ F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

RESISTORS
- All resistors are in ohms
- F : nonflammable

REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1241-319-A	F1 BOARD, COMPLETE **********	
		<CONNECTOR>	
CN1690	* 1-580-844-11	PIN, CONNECTOR (POWER)	
CN1691	* 1-695-292-11	PIN, CONNECTOR (POWER)	
		<FUSE>	
F1690	⚠ 1-532-350-11	FUSE, TIME-LAG 4A/250V	
	1-533-223-11	HOLDER, FUSE ; F1690	
		<SWITCH>	
S1690	⚠ 1-571-433-21	SWITCH, PUSH (AC POWER)	

****

	* A-1298-389-A	A BOARD, COMPLETE (KV-J29MF8J) **********			
	* A-1298-390-A	A BOARD, COMPLETE (KV-J25MF8J) **********			
	* 4-049-131-01	CASE (A), SHIELD			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C001	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C002	1-126-965-11	ELECT	22MF	20%	50V
C003	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C004	1-126-961-11	ELECT	2.2MF	20%	50V
C005	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C006	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C007	1-124-902-00	ELECT	0.47MF	20%	50V
C008	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C009	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C010	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C011	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C012	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C013	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C014	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C015	1-101-884-00	CERAMIC	56PF	5%	50V
C016	1-101-884-00	CERAMIC	56PF	5%	50V
C017	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C018	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C019	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C020	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C021	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C022	1-124-122-11	ELECT	100MF	20%	50V
C023	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C024	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C025	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C026	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C027	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C028	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C029	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C030	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C031	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C032	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C033	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C034	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C035	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C037	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C038	1-124-122-11	ELECT	100MF	20%	50V
C039	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C040	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C041	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C042	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C043	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C044	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C045	1-216-295-91	SHORT	0		
C046	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C048	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C049	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C050	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C051	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C052	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C053	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C054	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C055	1-126-941-11	ELECT	470MF	20%	16V
C056	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C057	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C064	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C065	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C066	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C067	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C068	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C069	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C072	1-126-941-11	ELECT	470MF	20%	16V
C074	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C078	1-104-665-11	ELECT	100MF	20%	16V
C079	1-136-165-00	FILM	0.1MF	5%	50V
C080	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C082	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C083	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C084	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C085	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C086	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C087	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C088	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C089	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C091	1-104-664-11	ELECT	47MF	20%	25V
C093	1-104-664-11	ELECT	47MF	20%	25V
C101	1-124-903-11	ELECT	1MF	20%	50V

A

REF. NO.	PART NO.	DESCRIPTION			REMARK
C102	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C103	1-104-760-11	CERAMIC CHIP	0.047MF	10%	50V
					(J25MF8J)
C105	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
					(J29MF8J)
C105	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
					(J25MF8J)
C106	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C107	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C108	1-124-557-11	ELECT	1000MF	20%	25V
C109	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C114	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C115	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C116	1-136-165-00	FILM	0.1MF	5%	50V
C117	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C118	1-126-965-11	ELECT	22MF	20%	50V
C119	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C120	1-130-493-00	MYLAR	0.068MF	5%	50V
C121	1-130-493-00	MYLAR	0.068MF	5%	50V
C122	1-104-665-11	ELECT	100MF	20%	16V
C129	1-136-173-00	FILM	0.47MF	5%	50V
C130	1-124-903-11	ELECT	1MF	20%	50V
C133	1-104-664-11	ELECT	47MF	20%	25V
C134	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C135	1-124-902-00	ELECT	0.47MF	20%	50V
C136	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C137	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C138	1-124-907-11	ELECT	10MF	20%	50V
C139	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C140	1-124-907-11	ELECT	10MF	20%	50V
C141	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C142	1-124-902-00	ELECT	0.47MF	20%	50V
C143	1-124-907-11	ELECT	10MF	20%	50V
C145	1-124-907-11	ELECT	10MF	20%	50V
C146	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C147	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C148	1-164-346-11	CERAMIC CHIP	1MF		16V
C149	1-164-346-11	CERAMIC CHIP	1MF		16V
C150	1-164-346-11	CERAMIC CHIP	1MF		16V
C151	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C152	1-104-664-11	ELECT	47MF	20%	25V
C153	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C154	1-126-961-11	ELECT	2.2MF	20%	50V
C155	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C156	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C157	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C158	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C159	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C160	1-164-346-11	CERAMIC CHIP	1MF		16V
C162	1-104-666-11	ELECT	220MF	20%	16V
C163	1-164-346-11	CERAMIC CHIP	1MF		16V
C164	1-137-581-11	FILM	0.1MF	5%	100V
C165	1-164-346-11	CERAMIC CHIP	1MF		16V
C166	1-137-581-11	FILM	0.1MF	5%	100V
C167	1-104-664-11	ELECT	47MF	20%	25V
C168	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C169	1-137-372-11	FILM	0.022MF	5%	50V
C170	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C187	1-137-372-11	FILM	0.022MF	5%	50V
C189	1-126-965-11	ELECT	22MF	20%	50V
C191	1-137-372-11	FILM	0.022MF	5%	50V
C192	1-126-961-11	ELECT	2.2MF	20%	50V
C195	1-136-173-00	FILM	0.47MF	5%	50V
C198	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C199	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C200	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C206	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C207	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C209	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C210	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C211	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C212	1-104-665-11	ELECT	100MF	20%	16V
C213	1-124-907-11	ELECT	10MF	20%	50V
C214	1-130-495-00	MYLAR	0.1MF	5%	50V
C216	1-104-661-91	ELECT	330MF	20%	16V
C217	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C219	1-104-664-11	ELECT	47MF	20%	25V
C220	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C223	1-164-161-11	CERAMIC CHIP	0.22MF	10%	25V
C224	1-164-161-11	CERAMIC CHIP	0.22MF	10%	25V
C237	1-124-903-11	ELECT	1MF	20%	50V
C238	1-124-903-11	ELECT	1MF	20%	50V
C240	1-124-903-11	ELECT	1MF	20%	50V
C241	1-128-550-11	ELECT	2200MF	20%	35V
C242	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C243	1-126-965-11	ELECT	22MF	20%	50V
C244	1-128-550-11	ELECT	2200MF	20%	35V
C245	1-130-495-00	MYLAR	0.1MF	5%	50V
C246	1-126-965-11	ELECT	22MF	20%	50V
C247	1-128-550-11	ELECT	2200MF	20%	35V
C248	1-130-495-00	MYLAR	0.1MF	5%	50V
C249	1-104-661-91	ELECT	330MF	20%	16V
C250	1-104-661-91	ELECT	330MF	20%	16V
C251	1-124-910-11	ELECT	47MF	20%	50V
C257	1-247-843-11	CARBON	3.3K	5%	1/4W
C258	1-247-843-11	CARBON	3.3K	5%	1/4W
C260	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C261	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C264	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C265	1-164-346-11	CERAMIC CHIP	1MF		16V
C266	1-164-346-11	CERAMIC CHIP	1MF		16V
C267	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C268	1-104-665-11	ELECT	100MF	20%	16V
C269	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C270	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C325	1-216-055-00	RES, CHIP 1.8K			
C326	1-216-055-00	RES, CHIP 1.8K			
C327	1-216-055-00	RES, CHIP 1.8K			
C367	1-104-664-11	ELECT	47MF	20%	25V
C370	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C374	1-124-910-11	ELECT	47MF	20%	50V
C375	1-124-910-11	ELECT	47MF	20%	50V
C420	1-104-664-11	ELECT	47MF	20%	25V
C1201	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C1203	1-104-664-11	ELECT	47MF	20%	25V
C1204	1-104-665-11	ELECT	100MF	20%	16V
C1205	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1206	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C1207	1-126-966-11	ELECT	33MF	20%	50V
C1208	1-104-664-11	ELECT	47MF	20%	25V
C1209	1-104-664-11	ELECT	47MF	20%	25V
C1210	1-104-664-11	ELECT	47MF	20%	25V
C1213	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1214	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1215	1-164-346-11	CERAMIC CHIP	1MF		16V
C1216	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1217	1-164-346-11	CERAMIC CHIP	1MF		16V
C1218	1-104-664-11	ELECT	47MF	20%	25V
C1219	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C1220	1-104-664-11	ELECT	47MF	20%	25V
C1226	1-164-346-11	CERAMIC CHIP	1MF		16V
C1227	1-164-346-11	CERAMIC CHIP	1MF		16V
C1228	1-126-941-11	ELECT	470MF	20%	16V
C1229	1-164-346-11	CERAMIC CHIP	1MF		16V
C1230	1-164-346-11	CERAMIC CHIP	1MF		16V
C1231	1-104-664-11	ELECT	47MF	20%	25V
C1232	1-164-346-11	CERAMIC CHIP	1MF		16V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C1233	1-164-346-11	CERAMIC CHIP	1MF		16V
C1234	1-104-664-11	ELECT	47MF	20%	25V
C1242	1-216-295-91	SHORT	0		
C1243	1-216-295-91	SHORT	0		
C1246	1-104-664-11	ELECT	47MF	20%	25V
C1250	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1251	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1252	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1253	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1254	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1255	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1256	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1257	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1258	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1259	1-163-251-11	CERAMIC CHIP	100PF	5%	50V (J25MF8J)
		<CONNECTOR>			
CN102	1-569-321-11	SOCKET, CONNECTOR 15P			
CN103	1-569-321-11	SOCKET, CONNECTOR 15P			
CN106	* 1-779-891-11	CONNECTOR, BOARD TO BOARD 8P			
CN107	* 1-779-891-11	CONNECTOR, BOARD TO BOARD 8P			
CN108	* 1-779-891-11	CONNECTOR, BOARD TO BOARD 8P			
CN109	* 1-779-892-11	CONNECTOR, BOARD TO BOARD 10P			
CN117	* 1-564-509-11	PLUG, CONNECTOR 6P			
CN118	* 1-560-278-21	PLUG, CONNECTOR 4P			
CN120	* 1-564-506-11	PLUG, CONNECTOR 3P			
CN121	* 1-770-747-11	CONNECTOR, BOARD TO BOARD 12P			
CN127	1-695-915-11	TAB (CONTACT)			
CN128	1-770-722-11	CONNECTOR, BOARD TO BOARD 6P			
		<DIODE>			
D001	8-719-109-81	DIODE RD4.7ESB2			
D002	8-719-988-62	DIODE 1SS355			
D005	8-719-908-03	DIODE GP08D			
D101	8-719-911-19	DIODE 1SS119-25			
D102	1-249-431-11	CARBON	15K	5%	1/4W
D103	8-719-988-62	DIODE 1SS355			
D104	8-719-914-43	DIODE DAN202K			
D105	8-719-988-62	DIODE 1SS355			
D106	8-719-157-36	DIODE RD6.8M-B			
D107	8-719-106-31	DIODE RD8.2M-T1B1			
D111	8-719-110-22	DIODE RD11ESB2			
D112	8-719-106-43	DIODE RD9.1M-B1			
D117	8-719-400-75	DIODE MA3091			
D210	8-719-911-19	DIODE 1SS119-25			
D211	8-719-404-49	DIODE MA111			
D212	8-719-404-49	DIODE MA111			
D218	8-719-914-43	DIODE DAN202K			
D220	8-719-109-88	DIODE RD5.6ESB1			
D352	8-719-109-84	DIODE RD5.1ESB1			
D353	8-719-908-03	DIODE GP08D			
D1201	8-719-121-24	DIODE RD9.1ESL			
D1202	8-719-121-24	DIODE RD9.1ESL			
D1203	8-719-121-24	DIODE RD9.1ESL			
D1204	8-719-121-24	DIODE RD9.1ESL			
D1205	8-719-121-24	DIODE RD9.1ESL			
D1208	8-719-121-24	DIODE RD9.1ESL			
D1209	8-719-121-24	DIODE RD9.1ESL			
D1210	8-719-121-24	DIODE RD9.1ESL			
D1211	8-719-121-24	DIODE RD9.1ESL			
D1212	8-719-121-24	DIODE RD9.1ESL			
D1213	8-719-121-24	DIODE RD9.1ESL			
D1214	8-719-121-24	DIODE RD9.1ESL			
D1215	8-719-121-24	DIODE RD9.1ESL			
D1216	8-719-121-24	DIODE RD9.1ESL			
D1220	8-719-121-24	DIODE RD9.1ESL			

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<DELAY LINE>	
DL300	1-409-547-11	DELAY LINE	
		<IC>	
IC001	8-752-890-83	IC CXP85332A-238S	
IC002	8-759-805-37	IC L78LR05D-MA	
IC003	8-759-370-33	IC ST24C04FB6	
IC102	8-759-157-40	IC uPC574J	
IC104	8-752-076-87	IC CXA2050S	
IC201	8-759-095-63	IC PQ09RF2	
IC203	8-759-168-24	IC TA8200AH	
IC205	8-759-231-58	IC TA7812S	
IC206	8-759-090-21	IC TDA8424	
IC351	8-759-288-85	IC TDA4665T-T	
IC354	8-759-251-56	IC TDA8395T	
IC1201	8-752-068-46	IC CXA1855S	
		<JACK>	
J1202	1-778-388-11	JACK BLOCK, PIN 9P	
		<CHIP CONDUCTOR>	
JR001	1-216-295-91	SHORT 0	
JR005	1-216-295-91	SHORT 0	
JR006	1-216-295-91	SHORT 0	
JR007	1-216-295-91	SHORT 0	
JR008	1-216-295-91	SHORT 0	
JR009	1-216-295-91	SHORT 0	
JR010	1-216-295-91	SHORT 0	
JR011	1-216-295-91	SHORT 0	
JR012	1-216-295-91	SHORT 0	
JR013	1-216-295-91	SHORT 0	
JR023	1-216-295-91	SHORT 0	
JR024	1-216-295-91	SHORT 0	
JR025	1-216-295-91	SHORT 0	
JR027	1-216-295-91	SHORT 0	
JR028	1-216-295-91	SHORT 0	
JR029	1-216-295-91	SHORT 0	
JR030	1-216-295-91	SHORT 0	
JR031	1-216-295-91	SHORT 0	
JR032	1-216-295-91	SHORT 0	
JR081	1-216-295-91	SHORT 0	
JR083	1-216-295-91	SHORT 0	
JR087	1-216-295-91	SHORT 0	
JR205	1-216-295-91	SHORT 0	
JR206	1-216-295-91	SHORT 0	
		<COIL>	
L001	1-408-397-00	INDUCTOR 1UH	
L002	1-408-409-00	INDUCTOR 10UH	
L003	1-408-605-31	INDUCTOR 15UH	
L004	1-408-409-00	INDUCTOR 10UH	
L010	1-410-663-31	INDUCTOR 10UH	
L080	1-408-409-00	INDUCTOR 10UH	
L082	1-408-409-00	INDUCTOR 10UH	
L108	1-408-409-00	INDUCTOR 10UH	
L109	1-408-421-00	INDUCTOR 100UH	
L110	1-408-409-00	INDUCTOR 10UH	
L1201	1-408-412-00	INDUCTOR 18UH	
		<TRANSISTOR>	
Q001	8-729-216-22	TRANSISTOR 2SA1162-G	
Q030	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q031	8-729-216-22	TRANSISTOR 2SA1162-G	
Q033	8-729-901-06	TRANSISTOR DTA144EK	

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REF. NO.	PART NO.	DESCRIPTION	REMARK
Q105	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q106	8-729-216-22	TRANSISTOR 2SA1162-G	
Q108	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q109	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q110	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q111	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q112	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q113	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q205	1-801-806-11	TRANSISTOR DTC144EK-T146	
Q209	1-801-806-11	TRANSISTOR DTC144EK-T146	
Q210	1-801-806-11	TRANSISTOR DTC144EK-T146	
Q211	8-729-216-22	TRANSISTOR 2SA1162-G	
Q306	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q315	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q320	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q352	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q354	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1201	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1202	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1203	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1205	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
Q1206	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L	
		<RESISTOR>	
R001	1-216-065-00	RES, CHIP 4.7K	
R002	1-216-065-00	RES, CHIP 4.7K	
R003	1-216-065-00	RES, CHIP 4.7K	
R004	1-216-065-00	RES, CHIP 4.7K	
R005	1-216-025-91	RES, CHIP 100	
R006	1-216-025-91	RES, CHIP 100	
R007	1-216-073-00	RES, CHIP 10K	
R008	1-216-049-91	RES, CHIP 1.0K	
R009	1-216-049-91	RES, CHIP 1.0K	
R010	1-216-049-91	RES, CHIP 1.0K	
R011	1-216-049-91	RES, CHIP 1.0K	
R013	1-216-049-91	RES, CHIP 1.0K	
R014	1-216-049-91	RES, CHIP 1.0K	
R015	1-216-049-91	RES, CHIP 1.0K	
R016	1-216-049-91	RES, CHIP 1.0K	
R018	1-216-033-00	RES, CHIP 220	
R019	1-216-101-00	RES, CHIP 150K	
R020	1-216-025-91	RES, CHIP 100	
R026	1-216-049-91	RES, CHIP 1.0K	
R028	1-216-025-91	RES, CHIP 100	
R029	1-216-065-00	RES, CHIP 4.7K	
R030	1-216-097-91	RES, CHIP 100K	
R031	1-216-049-91	RES, CHIP 1.0K	
R032	1-216-065-00	RES, CHIP 4.7K (J29MF8J)	
R033	1-216-049-91	RES, CHIP 1.0K	
R035	1-216-065-00	RES, CHIP 4.7K	
R036	1-216-065-00	RES, CHIP 4.7K (J29MF8J)	
R038	1-216-051-00	RES, CHIP 1.2K	
R039	1-216-025-91	RES, CHIP 100	
R040	1-216-051-00	RES, CHIP 1.2K	
R041	1-216-025-91	RES, CHIP 100	
R042	1-216-051-00	RES, CHIP 1.2K	
R043	1-216-081-00	RES, CHIP 22K	
R044	1-216-073-00	RES, CHIP 10K	
R046	1-216-025-91	RES, CHIP 100	
R047	1-216-025-91	RES, CHIP 100	
R048	1-216-025-91	RES, CHIP 100	
R049	1-216-121-91	RES, CHIP 1.0M	
R050	1-216-057-00	RES, CHIP 2.2K	
R053	1-216-025-91	RES, CHIP 100	
R054	1-216-073-00	RES, CHIP 10K	
R055	1-216-095-00	RES, CHIP 82K	
R056	1-216-025-91	RES, CHIP 100	
R057	1-216-049-91	RES, CHIP 1.0K	
R058	1-216-049-91	RES, CHIP 1.0K	
R059	1-216-065-00	RES, CHIP 4.7K	
R061	1-216-025-91	RES, CHIP 100	
R062	1-216-025-91	RES, CHIP 100	
R063	1-216-025-91	RES, CHIP 100	
R064	1-216-025-91	RES, CHIP 100	
R065	1-216-065-00	RES, CHIP 4.7K	
R066	1-216-065-00	RES, CHIP 4.7K	
R069	1-216-049-91	RES, CHIP 1.0K	
R070	1-216-033-00	RES, CHIP 220	
R071	1-216-033-00	RES, CHIP 220	
R072	1-216-073-00	RES, CHIP 10K	
R073	1-216-073-00	RES, CHIP 10K	
R074	1-216-079-00	RES, CHIP 18K	
R075	1-216-073-00	RES, CHIP 10K	
R076	1-216-025-91	RES, CHIP 100	
R077	1-216-025-91	RES, CHIP 100	
R078	1-216-073-00	RES, CHIP 10K	
R081	1-216-049-91	RES, CHIP 1.0K	
R090	1-216-073-00	RES, CHIP 10K	
R101	1-216-065-00	RES, CHIP 4.7K	
R102	1-216-025-91	RES, CHIP 100	
R103	1-216-041-00	RES, CHIP 470	
R104	1-216-077-00	RES, CHIP 15K	
R105	1-216-025-91	RES, CHIP 100	
R106	1-216-049-91	RES, CHIP 1.0K	
R107	1-216-033-00	RES, CHIP 220	
R108	1-216-049-91	RES, CHIP 1.0K	
R109	1-216-033-00	RES, CHIP 220	
R110	1-216-049-91	RES, CHIP 1.0K	
R111	1-216-033-00	RES, CHIP 220	
R112	1-216-025-91	RES, CHIP 100	
R113	1-216-081-00	RES, CHIP 22K	
R114	1-216-041-00	RES, CHIP 470	
R115	1-216-081-00	RES, CHIP 22K	
R116	1-216-081-00	RES, CHIP 22K	
R117	1-216-081-00	RES, CHIP 22K	
R118	1-216-081-00	RES, CHIP 22K	
R119	1-216-055-00	RES, CHIP 1.8K	
R120	1-216-109-00	RES, CHIP 330K	
R121	1-208-806-11	RES, CHIP 10K	
R122	1-216-033-00	RES, CHIP 220	
R123	1-216-065-00	RES, CHIP 4.7K	
R124	1-216-025-91	RES, CHIP 100	
R125	1-216-025-91	RES, CHIP 100	
R126	1-216-025-91	RES, CHIP 100	
R128	1-216-033-00	RES, CHIP 220	
R129	1-216-041-00	RES, CHIP 470	
R130	1-216-025-91	RES, CHIP 100	
R132	1-216-033-00	RES, CHIP 220	
R133	1-216-025-91	RES, CHIP 100	
R135	1-216-295-91	SHORT 0	
R138	1-216-025-91	RES, CHIP 100	
R139	1-216-049-91	RES, CHIP 1.0K	
R141	1-216-109-00	RES, CHIP 330K (J25MF8J)	
R142	1-216-049-91	RES, CHIP 1.0K	
R143	1-216-041-00	RES, CHIP 470	
R144	1-216-053-00	RES, CHIP 1.5K	
R145	1-216-061-00	RES, CHIP 3.3K	
R146	1-216-025-91	RES, CHIP 100	
R148	1-216-105-91	RES, CHIP 220K	
R149	1-216-041-00	RES, CHIP 470	
R150	1-216-041-00	RES, CHIP 470	
R151	1-216-043-91	RES, CHIP 560	
R152	1-216-065-00	RES, CHIP 4.7K (J25MF8J)	
R153	1-216-295-91	SHORT 0	
R154	1-216-031-00	RES, CHIP 180	
R155	1-216-295-91	SHORT 0	

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REF. NO.	PART NO.	DESCRIPTION				REMARK
R156	1-216-031-00	RES, CHIP 180				
R157	1-216-295-91	SHORT	0			
R158	1-216-031-00	RES, CHIP 180				
R159	1-216-033-00	RES, CHIP 220				
R160	1-216-073-00	RES, CHIP 10K				
R164	1-216-099-00	RES, CHIP 120K (J25MF8J)				
R170	1-216-037-00	RES, CHIP 330				
R171	1-216-081-00	RES, CHIP 22K				
R172	1-216-097-91	RES, CHIP 100K				
R173	1-216-081-00	RES, CHIP 22K (J25MF8J)				
R174	1-216-105-91	RES, CHIP 220K (J29MF8J)				
R174	1-216-109-00	RES, CHIP 330K (J25MF8J)				
R175	1-216-073-00	RES, CHIP 10K (J29MF8J)				
R175	1-216-079-00	RES, CHIP 18K (J25MF8J)				
R176	1-216-061-00	RES, CHIP 3.3K				
R177	1-216-049-91	RES, CHIP 1.0K				
R178	1-216-025-91	RES, CHIP 100				
R179	1-208-291-11	RES, CHIP 4.7M (J29MF8J)				
R179	1-216-119-00	RES, CHIP 820K (J25MF8J)				
R180	1-216-033-00	RES, CHIP 220				
R181	1-216-033-00	RES, CHIP 220				
R182	1-216-033-00	RES, CHIP 220				
R184	1-216-059-00	RES, CHIP 2.7K				
R186	1-216-001-00	RES, CHIP 10				
R191	1-216-025-91	RES, CHIP 100				
R192	1-216-097-91	RES, CHIP 100K				
R201	1-164-346-11	CERAMIC CHIP	1MF		16V	
R202	1-164-346-11	CERAMIC CHIP	1MF		16V	
R203	1-216-073-00	RES, CHIP 10K				
R208	1-216-475-11	METAL OXIDE	120	5%	3W	F
R209	1-216-049-91	RES, CHIP 1.0K				
R210	1-216-089-91	RES, CHIP 47K				
R211	1-216-049-91	RES, CHIP 1.0K				
R213	1-216-073-00	RES, CHIP 10K				
R214	1-216-073-00	RES, CHIP 10K				
R215	1-216-089-91	RES, CHIP 47K				
R217	1-216-295-91	SHORT	0			
R244	1-249-413-11	CARBON	470	5%	1/4W	
R245	1-216-061-00	RES, CHIP 3.3K				
R246	1-216-061-00	RES, CHIP 3.3K				
R252	1-249-413-11	CARBON	470	5%	1/4W	
R253	1-216-386-11	METAL OXIDE	0.56	5%	3W	F
R254	1-216-025-91	RES, CHIP 100				
R255	1-216-308-00	RES, CHIP 4.7				
R258	1-216-025-91	RES, CHIP 100				
R259	1-216-308-00	RES, CHIP 4.7				
R267	1-216-041-00	RES, CHIP 470				
R268	1-216-025-91	RES, CHIP 100				
R269	1-216-025-91	RES, CHIP 100				
R270	1-216-025-91	RES, CHIP 100				
R271	1-216-025-91	RES, CHIP 100				
R303	1-216-001-00	RES, CHIP 10				
R304	1-216-049-91	RES, CHIP 1.0K				
R305	1-216-025-91	RES, CHIP 100				
R306	1-216-025-91	RES, CHIP 100				
R345	1-216-049-91	RES, CHIP 1.0K				
R347	1-216-049-91	RES, CHIP 1.0K				
R361	1-216-295-91	SHORT	0			
R363	1-216-295-91	SHORT	0			
R364	1-216-033-00	RES, CHIP 220				
R365	1-216-025-91	RES, CHIP 100				
R366	1-216-033-00	RES, CHIP 220				
R368	1-216-033-00	RES, CHIP 220				
R381	1-216-051-00	RES, CHIP 1.2K				
R382	1-216-051-00	RES, CHIP 1.2K				
R391	1-216-043-91	RES, CHIP 560				
R392	1-216-295-91	SHORT	0			
R801	1-216-025-91	RES, CHIP 100				
R1200	1-216-033-00	RES, CHIP 220				
R1201	1-216-025-91	RES, CHIP 100				
R1202	1-216-025-91	RES, CHIP 100				
R1203	1-216-033-00	RES, CHIP 220				
R1204	1-216-031-00	RES, CHIP 180				
R1205	1-216-073-00	RES, CHIP 10K				
R1206	1-216-067-00	RES, CHIP 5.6K				
R1207	1-216-067-00	RES, CHIP 5.6K				
R1208	1-216-025-91	RES, CHIP 100				
R1209	1-216-033-00	RES, CHIP 220				
R1210	1-216-031-00	RES, CHIP 180				
R1211	1-216-093-00	RES, CHIP 68K				
R1212	1-216-025-91	RES, CHIP 100				
R1213	1-216-073-00	RES, CHIP 10K				
R1214	1-216-041-00	RES, CHIP 470				
R1215	1-216-025-91	RES, CHIP 100				
R1216	1-216-025-91	RES, CHIP 100				
R1217	1-216-025-91	RES, CHIP 100				
R1218	1-216-025-91	RES, CHIP 100				
R1219	1-216-025-91	RES, CHIP 100				
R1220	1-216-025-91	RES, CHIP 100				
R1221	1-216-073-00	RES, CHIP 10K				
R1222	1-216-025-91	RES, CHIP 100				
R1223	1-216-041-00	RES, CHIP 470				
R1224	1-216-025-91	RES, CHIP 100				
R1225	1-216-025-91	RES, CHIP 100				
R1226	1-216-025-91	RES, CHIP 100				
R1227	1-216-025-91	RES, CHIP 100				
R1228	1-216-025-91	RES, CHIP 100				
R1231	1-216-295-91	SHORT	0			
R1232	1-216-033-00	RES, CHIP 220				
R1233	1-216-053-00	RES, CHIP 1.5K				
R1234	1-216-105-91	RES, CHIP 220K				
R1235	1-216-295-91	SHORT	0			
R1236	1-216-295-91	SHORT	0			
R1237	1-216-105-91	RES, CHIP 220K				
R1239	1-216-022-00	RES, CHIP 75				
R1240	1-216-022-00	RES, CHIP 75				
R1241	1-216-097-91	RES, CHIP 100K				
R1242	1-216-057-00	RES, CHIP 2.2K				
R1243	1-216-097-91	RES, CHIP 100K				
R1245	1-216-027-00	RES, CHIP 120				
R1246	1-216-033-00	RES, CHIP 220				
R1247	1-216-295-91	SHORT	0			
R1254	1-216-113-00	RES, CHIP 470K				
R1255	1-216-049-91	RES, CHIP 1.0K				
R1256	1-216-113-00	RES, CHIP 470K				
R1257	1-216-049-91	RES, CHIP 1.0K				
R1258	1-216-113-00	RES, CHIP 470K				
R1259	1-216-021-00	RES, CHIP 68				
R1260	1-216-105-91	RES, CHIP 220K				
R1261	1-216-065-00	RES, CHIP 4.7K				
R1262	1-216-105-91	RES, CHIP 220K				
R1263	1-216-065-00	RES, CHIP 4.7K				
R1264	1-216-022-00	RES, CHIP 75				
R1265	1-216-105-91	RES, CHIP 220K				
R1266	1-216-065-00	RES, CHIP 4.7K				
R1267	1-216-105-91	RES, CHIP 220K				
R1268	1-216-065-00	RES, CHIP 4.7K				
R1269	1-216-022-00	RES, CHIP 75				
R1275	1-216-025-91	RES, CHIP 100				
R1276	1-216-025-91	RES, CHIP 100				
R1277	1-216-025-91	RES, CHIP 100				
R1278	1-216-025-91	RES, CHIP 100				
R1288	1-216-295-91	SHORT	0			
R1289	1-216-295-91	SHORT	0			
R1295	1-216-033-00	RES, CHIP 220				
R1296	1-216-033-00	RES, CHIP 220				
R1297	1-216-033-00	RES, CHIP 220				
R1298	1-216-041-00	RES, CHIP 470				

A C2

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1299	1-216-041-00	RES, CHIP 470	
		<TUNER>	
TU001	⚠8-598-375-01	TUNER, VSS BTV-FG441	
		<CRYSTAL>	
X101	1-577-358-21	VIBRATOR, CERAMIC	
X102	1-567-505-11	OSCILLATOR, CRYSTAL	
X103	1-567-504-11	OSCILLATOR, CRYSTAL	
X104	1-577-611-11	OSCILALTOR, CERAMIC	
		<MODULE>	
YCM301	1-466-162-61	FILTER BLOCK, COM (CFB-4)	
**********			
*	A-1331-604-A	C2 BOARD, COMPLETE (KV-J29MF8J) **********	
*	A-1331-625-A	C2 BOARD, COMPLETE (KV-J25MF8J) **********	
	7-682-948-01	SCREW +PSW 3X8	
		<CAPACITOR>	
C701	1-137-490-11	FILM 0.01MF 10% 1KV	
C702	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C708	1-102-114-00	CERAMIC 470PF 10% 50V	
C709	1-102-114-00	CERAMIC 470PF 10% 50V	
C710	1-102-114-00	CERAMIC 470PF 10% 50V	
C711	1-101-880-00	CERAMIC 47PF 5% 50V	
C712	1-102-114-00	CERAMIC 470PF 10% 50V	
C713	1-102-112-00	CERAMIC 330PF 10% 50V	
C714	1-102-112-00	CERAMIC 330PF 10% 50V	
C716	1-124-122-11	ELECT 100MF 20% 50V	
C717	1-107-651-11	ELECT 4.7MF 20% 250V	
C726	1-104-664-11	ELECT 47MF 20% 25V	
		<CONNECTOR>	
CN701	*1-508-766-00	PIN, CONNECTOR (5mm PITCH) 4P	
CN703	*1-564-509-11	PLUG, CONNECTOR 6P	
CN704	1-695-915-11	TAB (CONTACT)	
		<DIODE>	
D701	8-719-911-19	DIODE 1SS119-25	
D702	8-719-911-19	DIODE 1SS119-25	
D703	8-719-911-19	DIODE 1SS119-25	
D704	8-719-911-19	DIODE 1SS119-25	
D705	8-719-911-19	DIODE 1SS119-25	
D706	8-719-911-19	DIODE 1SS119-25	
D707	8-719-911-19	DIODE 1SS119-25	
D708	8-719-911-19	DIODE 1SS119-25	
D709	8-719-911-19	DIODE 1SS119-25	
D710	8-719-991-33	DIODE 1SS133T-77	
D711	8-719-991-33	DIODE 1SS133T-77	
D712	8-719-991-33	DIODE 1SS133T-77	
D713	8-719-908-03	DIODE GP08D	
D720	8-719-911-19	DIODE 1SS119-25	
D721	8-719-911-19	DIODE 1SS119-25	
		<JACK>	
J701	⚠1-251-239-11	SOCKET, PICTURE TUBE (J25MF8J)	
J701	⚠1-526-990-21	SOCKET, PICTURE TUBE (J29MF8J)	

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<COIL>	
L701	1-410-667-31	INDUCTOR 22UH	
L703	1-408-609-41	INDUCTOR 33UH	
L705	1-408-609-41	INDUCTOR 33UH	
L707	1-408-609-41	INDUCTOR 33UH	
		<TRANSISTOR>	
Q701	8-729-326-11	TRANSISTOR 2SC2611	
Q702	8-729-326-11	TRANSISTOR 2SC2611	
Q703	8-729-326-11	TRANSISTOR 2SC2611	
Q704	8-729-326-11	TRANSISTOR 2SC2611	
Q705	8-729-326-11	TRANSISTOR 2SC2611	
Q706	8-729-326-11	TRANSISTOR 2SC2611	
Q707	8-729-200-17	TRANSISTOR 2SA1091-O	
Q708	8-729-200-17	TRANSISTOR 2SA1091-O	
Q709	8-729-200-17	TRANSISTOR 2SA1091-O	
Q710	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q711	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q712	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q713	8-729-200-17	TRANSISTOR 2SA1091-O	
Q714	8-729-255-12	TRANSISTOR 2SC2551-O	
		<RESISTOR>	
R701	1-244-941-00	CARBON 680K 5% 1/2W	
R702	1-249-496-11	CARBON 100K 5% 1/2W	
R703	1-249-489-11	CARBON 22K 5% 1/2W	
R705	1-216-389-11	METAL OXIDE 1 5% 3W	F
R710	1-215-923-00	METAL OXIDE 10K 5% 3W	F
R711	1-260-101-11	CARBON 1.5K 5% 1/2W	
R712	1-215-923-00	METAL OXIDE 10K 5% 3W	F
R713	1-260-101-11	CARBON 1.5K 5% 1/2W	
R714	1-215-923-00	METAL OXIDE 10K 5% 3W	F
R715	1-260-101-11	CARBON 1.5K 5% 1/2W	
R716	1-249-899-11	CARBON 100 5% 1/4W	F
R717	1-249-899-11	CARBON 100 5% 1/4W	F
R718	1-249-899-11	CARBON 100 5% 1/4W	F
R720	1-249-923-11	CARBON 1K 5% 1/4W	F
R722	1-249-923-11	CARBON 1K 5% 1/4W	F
R724	1-249-923-11	CARBON 1K 5% 1/4W	F
R725	1-249-426-11	CARBON 5.6K 5% 1/4W	
R726	1-249-426-11	CARBON 5.6K 5% 1/4W	
R727	1-249-426-11	CARBON 5.6K 5% 1/4W	
R728	1-249-408-11	CARBON 180 5% 1/4W	
R729	1-249-408-11	CARBON 180 5% 1/4W	
R730	1-247-815-91	CARBON 220 5% 1/4W	
R731	1-249-401-11	CARBON 47 5% 1/4W	
R732	1-249-401-11	CARBON 47 5% 1/4W	
R733	1-249-401-11	CARBON 47 5% 1/4W	
R734	1-260-087-11	CARBON 100 5% 1/2W	
R735	1-249-417-11	CARBON 1K 5% 1/4W	
R738	1-247-807-31	CARBON 100 5% 1/4W	
R739	1-247-807-31	CARBON 100 5% 1/4W	
R740	1-247-807-31	CARBON 100 5% 1/4W	
R741	1-249-437-11	CARBON 47K 5% 1/4W	
R743	1-249-435-11	CARBON 33K 5% 1/4W	
R744	1-215-413-00	METAL 470 1% 1/4W	
R745	1-215-413-00	METAL 470 1% 1/4W	
R747	1-216-489-11	METAL OXIDE 27K 5% 3W	F
R748	1-249-441-11	CARBON 100K 5% 1/4W	
R749	1-216-490-11	METAL OXIDE 39K 5% 3W	F
R751	1-215-926-00	METAL OXIDE 33K 5% 3W	F
R753	1-249-429-11	CARBON 10K 5% 1/4W	
R755	1-249-427-11	CARBON 6.8K 5% 1/4W	
R756	1-249-427-11	CARBON 6.8K 5% 1/4W	
R757	1-249-427-11	CARBON 6.8K 5% 1/4W	
R758	1-249-419-11	CARBON 1.5K 5% 1/4W	
R759	1-249-419-11	CARBON 1.5K 5% 1/4W	
R760	1-249-419-11	CARBON 1.5K 5% 1/4W	F

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<VARIABLE RESISTOR>			
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M			
RV702	1-241-656-21	RES, ADJ, METAL FILM 110M (J29MF8J)			
RV704	1-247-895-91	CARBON	470K	5%	1/4W
RV705	1-247-901-11	CARBON	820K	5%	1/4W
**********					
	* A-1342-393-A	VM BOARD, COMPLETE (KV-J29MF8J) **********			
	* A-1342-394-A	VM BOARD, COMPLETE (KV-J25MF8J) **********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C961	1-161-830-00	CERAMIC	0.0047MF		500V
C962	1-130-491-00	MYLAR	0.047MF	5%	50V
C963	1-107-638-11	ELECT	33MF	20%	160V
C964	1-126-941-11	ELECT	470MF	20%	16V
C965	1-102-121-00	CERAMIC	0.0022MF	10%	50V (J29MF8J)
C966	1-102-121-00	CERAMIC	0.0022MF	10%	50V (J29MF8J)
C967	1-124-907-11	ELECT	10MF	20%	50V (J29MF8J)
C968	1-106-383-00	MYLAR	0.047MF	10%	200V
C969	1-107-949-11	ELECT	2.2MF	20%	160V
C970	1-104-999-11	MYLAR	0.1MF	10%	200V
C971	1-126-960-11	ELECT	1MF	20%	50V (J29MF8J)
C972	1-107-883-11	ELECT	330MF	20%	16V
C973	1-130-491-00	MYLAR	0.047MF	5%	50V
C975	1-126-941-11	ELECT	470MF	20%	16V
C978	1-130-471-00	MYLAR	0.001MF	5%	50V
C979	1-130-471-00	MYLAR	0.001MF	5%	50V
C980	1-104-665-11	ELECT	100MF	20%	16V
C982	1-102-959-00	CERAMIC	22PF	5%	50V
C983	1-136-164-00	FILM	0.082MF	5%	50V (J29MF8J)
		<CONNECTOR>			
CN961	* 1-564-511-11	PLUG, CONNECTOR 8P			
CN962	* 1-564-507-11	PLUG, CONNECTOR 4P (J29MF8J)			
CN963	* 1-564-506-11	PLUG, CONNECTOR 3P (J29MF8J)			
		<DIODE>			
D964	8-719-911-19	DIODE 1SS119-25			
D965	8-719-911-19	DIODE 1SS119-25 (J29MF8J)			
D967	8-719-110-88	DIODE RD39ESB2			
D968	8-719-110-88	DIODE RD39ESB2			
D1831	8-719-911-19	DIODE 1SS119-25 (J29MF8J)			
D1833	8-719-911-19	DIODE 1SS119-25 (J29MF8J)			
		<TRANSISTOR>			
Q961	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q962	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q963	8-729-017-05	TRANSISTOR 2SA1837			
Q965	8-729-017-06	TRANSISTOR 2SC4793			
Q967	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q968	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q1831	8-729-140-98	TRANSISTOR 2SD773-34 (J29MF8J)			
Q1832	8-729-140-93	TRANSISTOR 2SB733-34 (J29MF8J)			
Q1833	8-729-140-98	TRANSISTOR 2SD773-34 (J29MF8J)			
Q1834	8-729-140-93	TRANSISTOR 2SB733-34 (J29MF8J)			

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<RESISTOR>			
R962	1-249-401-11	CARBON	47	5%	1/4W
R963	1-249-417-11	CARBON	1K	5%	1/4W
R964	1-247-735-11	CARBON	47	5%	1/2W F
R965	1-249-414-11	CARBON	560	5%	1/4W F
R966	1-249-417-11	CARBON	1K	5%	1/4W
R967	1-249-411-11	CARBON	330	5%	1/4W
R968	1-249-417-11	CARBON	1K	5%	1/4W
R969	1-249-383-11	CARBON	1.5	5%	1/4W F
R970	1-249-403-11	CARBON	68	5%	1/4W
R971	1-247-815-91	CARBON	220	5%	1/4W
R972	1-249-432-11	CARBON	18K	5%	1/4W
R973	1-249-403-11	CARBON	68	5%	1/4W
R974	1-216-476-11	METAL OXIDE	180	5%	3W F
R975	1-249-417-11	CARBON	1K	5%	1/4W F
R976	1-249-432-11	CARBON	18K	5%	1/4W
R977	1-249-429-11	CARBON	10K	5%	1/4W
R978	1-249-406-11	CARBON	120	5%	1/4W
R979	1-249-414-11	CARBON	560	5%	1/4W
R980	1-249-406-11	CARBON	120	5%	1/4W
R981	1-249-416-11	CARBON	820	5%	1/4W
R982	1-249-383-11	CARBON	1.5	5%	1/4W F
R983	1-249-438-11	CARBON	56K	5%	1/4W (J29MF8J)
R984	1-249-440-11	CARBON	82K	5%	1/4W (J29MF8J)
R985	1-249-401-11	CARBON	47	5%	1/4W F
R1831	1-249-417-11	CARBON	1K	5%	1/4W (J29MF8J)
R1832	1-249-417-11	CARBON	1K	5%	1/4W (J29MF8J)
R1833	1-249-417-11	CARBON	1K	5%	1/4W (J29MF8J)
R1834	1-249-417-11	CARBON	1K	5%	1/4W (J29MF8J)
R1835	1-247-729-11	CARBON	15	5%	1/2W F (J29MF8J)
R1836	1-247-688-11	CARBON	10	5%	1/4W F (J29MF8J)
R1837	1-249-417-11	CARBON	1K	5%	1/4W (J29MF8J)
R1838	1-249-417-11	CARBON	1K	5%	1/4W (J29MF8J)
R1839	1-249-417-11	CARBON	1K	5%	1/4W (J29MF8J)
R1840	1-249-417-11	CARBON	1K	5%	1/4W (J29MF8J)
R1841	1-247-729-11	CARBON	15	5%	1/2W F (J29MF8J)
R1842	1-247-688-11	CARBON	10	5%	1/4W F (J29MF8J)
**********					
	* A-1346-699-A	D BOARD, COMPLETE (KV-J29MF8J) **********			
	* A-1346-700-A	D BOARD, COMPLETE (KV-J25MF8J) **********			
	4-057-539-21	SHEET, INSULATING			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C602	1-107-929-11	ELECT	10MF	20%	100V
C603	1-107-883-11	ELECT	330MF	20%	16V
C604	1-102-074-00	CERAMIC	0.001MF	10%	50V
C605	1-161-754-00	CERAMIC	0.001MF	10%	3KV
C609	1-107-928-11	ELECT	4.7MF	20%	100V
C610	1-161-754-00	CERAMIC	0.001MF	10%	3KV

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C611	1-102-002-00	CERAMIC	680PF	10%	500V
C612	1-102-002-00	CERAMIC	680PF	10%	500V
C613	1-125-494-11	ELECT(BLOCK)	560MF	20%	160V
C614	1-107-890-11	ELECT	2200MF	20%	25V
C615	1-124-607-11	ELECT	2200MF	20%	50V
C618	1-128-528-11	ELECT	470MF	20%	16V
C620	1-164-625-11	CERAMIC	680PF	10%	500V
C621	1-102-002-00	CERAMIC	680PF	10%	500V
C622	1-113-900-11	CERAMIC	470PF	10%	250V
C624	1-102-002-00	CERAMIC	680PF	10%	500V
C626	1-102-074-00	CERAMIC	0.001MF	10%	50V
C629	1-162-116-00	CERAMIC	680PF	10%	2KV
C632	1-137-353-11	MYLAR	0.047MF	10%	100V
C633	1-162-318-11	CERAMIC	0.001MF	10%	500V
C642	1-102-212-00	CERAMIC	820PF	10%	500V
C643	1-164-645-11	CERAMIC	1000PF	10%	500V
C644	1-102-212-00	CERAMIC	820PF	10%	500V
C683	1-126-768-11	ELECT	2200MF	20%	16V
C684	1-126-768-11	ELECT	2200MF	20%	16V
C808	1-162-114-00	CERAMIC	0.0047MF		2KV
C814	1-104-665-11	ELECT	100MF	20%	16V
C816	1-102-244-00	CERAMIC	220PF	10%	500V
C818	1-129-722-00	FILM	0.047MF	5%	630V (J29MF8J)
C835	1-126-941-11	ELECT	470MF	20%	25V
C836	1-102-228-00	CERAMIC	470PF	10%	500V
C839	1-107-655-11	ELECT	47MF	20%	250V
C840	1-126-941-11	ELECT	470MF	20%	25V
C841	1-102-228-00	CERAMIC	470PF	10%	500V
C842	1-106-387-00	MYLAR	0.068MF	10%	200V
C846	1-123-024-21	ELECT	33MF		160V
C875	1-102-038-00	CERAMIC	0.001MF		500V
C877	1-124-902-00	ELECT	0.47MF	20%	50V
C1501	1-102-820-00	CERAMIC	330PF	5%	50V
C1503	1-102-820-00	CERAMIC	330PF	5%	50V
C1504	1-126-941-11	ELECT	470MF	20%	25V
C1505	1-126-969-11	ELECT	220MF	20%	50V
C1506	1-136-171-00	FILM	0.33MF	5%	50V
C1507	1-106-220-00	MYLAR	0.1MF	10%	100V
C1509	1-109-953-11	CAPACITOR	2.2MF	20%	50V
C1511	1-104-665-11	ELECT	100MF	20%	16V
C1514	1-136-165-00	FILM	0.1MF	5%	50V
C1515	1-136-165-00	FILM	0.1MF	5%	50V
C1518	1-130-495-00	MYLAR	0.1MF	5%	50V
C1519	1-130-495-00	MYLAR	0.1MF	5%	50V
C1520	1-104-665-11	ELECT	100MF	20%	16V
C1521	1-126-967-11	ELECT	47MF	20%	50V
C1579	1-126-941-11	ELECT	470MF	20%	25V
C1800	1-124-907-11	ELECT	10MF	20%	50V (J29MF8J)
C1804	1-124-907-11	ELECT	10MF	20%	50V (J29MF8J)
C1805	1-129-765-00	FILM	0.047MF	5%	200V (J29MF8J)
C1806	1-136-155-00	FILM	0.015MF	5%	50V (J29MF8J)
C1807	1-136-175-00	FILM	0.68MF	5%	50V (J29MF8J)
C1809	1-126-942-61	ELECT	1000MF	20%	25V (J29MF8J)
C1812	1-126-965-11	ELECT	22MF	20%	50V (J29MF8J)
C1813	1-124-907-11	ELECT	10MF	20%	50V (J29MF8J)
C2501	1-130-499-00	MYLAR	0.22MF	5%	50V (J25MF8J)
C2504	1-104-665-11	ELECT	100MF	20%	25V
C2505	1-107-846-11	FILM	0.1MF	5%	200V (J29MF8J)
C2510	1-130-475-00	MYLAR	0.0022MF	5%	50V (J29MF8J)

REF. NO.	PART NO.	DESCRIPTION			REMARK
C2510	1-130-476-00	MYLAR	0.0027MF	5%	50V (J25MF8J)
C2515	1-137-417-11	MYLAR	0.0047MF	10%	200V
C2517	1-162-115-00	CERAMIC	330PF	10%	2KV (J25MF8J)
C2517	1-162-116-00	CERAMIC	680PF	10%	2KV (J29MF8J)
C2518	1-162-116-00	CERAMIC	680PF	10%	2KV
C2519	1-113-582-11	FILM	0.017MF	3%	2KV (J25MF8J)
C2519	1-117-200-11	FILM	16000PF	3%	2KV (J29MF8J)
C2520	1-162-115-00	CERAMIC	330PF	10%	2KV (J29MF8J)
C2520	1-162-116-00	CERAMIC	680PF	10%	2KV (J25MF8J)
C2521	1-130-959-00	FILM	0.047MF	5%	400V
C2522	1-106-383-00	MYLAR	0.047MF	10%	200V (J29MF8J)
C2522	1-107-364-11	MYLAR	0.01MF	10%	200V (J25MF8J)
C2523	1-102-002-00	CERAMIC	680PF	10%	500V (J25MF8J)
C2524	1-102-212-00	CERAMIC	820PF	10%	500V
C2526	1-106-395-00	MYLAR	0.15MF	10%	200V
C2527	1-107-636-11	ELECT	10MF	20%	160V
C2528	1-115-356-11	FILM	1.2MF	5%	200V (J29MF8J)
C2528	1-117-674-11	FILM	1.8MF	5%	200V (J25MF8J)
C2529	1-106-343-00	MYLAR	0.001MF	10%	100V
C2530	1-115-521-11	FILM	0.82MF	5%	200V (J29MF8J)
C2530	1-136-110-00	FILM	0.91MF	5%	200V (J25MF8J)
C2540	1-130-487-00	MYLAR	0.022MF	5%	50V
C2543	1-124-484-11	ELECT	220MF	20%	35V
C2546	1-136-060-00	FILM	0.047MF	5%	400V (J29MF8J)
C2547	1-102-112-00	CERAMIC	330PF	10%	50V
C2548	1-162-135-11	CERAMIC	560PF	10%	2KV (J25MF8J)
C2552	1-126-965-11	ELECT	22MF	20%	50V
C2553	1-102-110-00	CERAMIC	220PF	10%	50V (J29MF8J)
C2601	⚠ 1-113-900-51	CERAMIC	470PF	10%	250V
C2602	1-130-711-00	FILM	0.22MF	20%	250V
C2603	⚠ 1-113-900-51	CERAMIC	470PF	10%	250V
C2604	1-130-711-00	FILM	0.22MF	20%	250V
C2605	1-107-909-11	ELECT	47MF	20%	50V
C2606	1-161-830-00	CERAMIC	0.0047MF		500V
C2607	1-161-830-00	CERAMIC	0.0047MF		500V
C2609	1-161-830-00	CERAMIC	0.0047MF		500V
C2610	1-161-830-00	CERAMIC	0.0047MF		500V
C2613	1-136-175-00	FILM	0.68MF	5%	50V
C2617	1-109-841-11	ELECT(BLOCK)	560MF	20%	400V
C2618	1-136-601-11	FILM	0.01MF	10%	630V
C2620	1-130-711-00	FILM	0.22MF	20%	250V

<CONNECTOR>

CN506	* 1-779-890-11	CONNECTOR, BOARD TO BOARD 10P	
CN518	* 1-564-508-11	PLUG, CONNECTOR 5P	
CN520	* 1-779-889-11	CONNECTOR, BOARD TO BOARD 8P	
CN526	* 1-779-889-11	CONNECTOR, BOARD TO BOARD 8P	
CN527	1-695-915-11	TAB (CONTACT)	
CN528	* 1-779-889-11	CONNECTOR, BOARD TO BOARD 8P	
CN530	1-695-915-11	TAB (CONTACT)	
CN0521	* 1-508-766-00	PIN, CONNECTOR (5mm PITCH) 4P	
CN1804	* 1-564-507-11	PLUG, CONNECTOR 4P (J29MF8J)	
CN2600	* 1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	

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REF. NO.	PART NO.	DESCRIPTION	REMARK
CN2601	* 1-564-518-11	PLUG, CONNECTOR 3P	
CN2602	1-508-786-00	PIN, CONNECTOR (5mm PITCH) 2P	
CN2605	* 1-508-765-00	PIN, CONNECTOR (5mm PITCH) 3P	
		<DIODE>	
D601	8-719-110-02	DIODE RD7.5ESB1	
D602	8-719-510-26	DIODE D1NL20-TA2	
D603	8-719-510-26	DIODE D1NL20-TA2	
D604	8-719-510-37	DIODE D5LC20U	
D605	8-719-911-19	DIODE 1SS119-25	
D606	8-719-302-43	DIODE EL1Z	
D608	8-719-979-85	DIODE EGP20G	
D609	8-719-312-10	DIODE RU4AM-T3	
D611	8-719-510-37	DIODE D5LC20U	
D612	8-719-110-02	DIODE RD7.5ESB1	
D614	8-719-911-19	DIODE 1SS119-25	
D616	8-719-510-26	DIODE D1NL20-TA2	
D618	1-249-417-11	CARBON 1K 5% 1/4W	
D619	8-719-911-19	DIODE 1SS119-25	
D621	8-719-110-36	DIODE RD13ESB2	
D633	8-719-911-19	DIODE 1SS119-25	
D801	8-719-018-82	DIODE RGP02-20EL-6394	
D803	8-719-911-19	DIODE 1SS119-25	
D814	8-719-302-43	DIODE EL1Z	
D815	8-719-302-43	DIODE EL1Z	
D816	8-719-302-43	DIODE EL1Z	
D824	8-719-028-72	DIODE RGP02-17EL-6433	
D825	8-719-911-19	DIODE 1SS119-25	
D1501	8-719-911-19	DIODE 1SS119-25	
D1502	8-719-150-92	DIODE RD33EB3T	
D1503	8-719-908-03	DIODE GP08D	
D1505	8-719-911-19	DIODE 1SS119-25	
D1506	8-719-911-19	DIODE 1SS119-25	
D1507	8-719-911-19	DIODE 1SS119-25	
D1508	8-719-911-19	DIODE 1SS119-25	
D1509	8-719-911-19	DIODE 1SS119-25	
D1510	8-719-911-19	DIODE 1SS119-25	
D1511	8-719-911-19	DIODE 1SS119-25	
D1803	8-719-911-19	DIODE 1SS119-25 (J29MF8J)	
D1804	8-719-911-19	DIODE 1SS119-25 (J29MF8J)	
D1805	8-719-302-43	DIODE EL1Z (J29MF8J)	
D1806	8-719-911-19	DIODE 1SS119-25 (J29MF8J)	
D1808	8-719-908-03	DIODE GP08D (J29MF8J)	
D2500	8-719-923-38	DIODE MTZJ-T-77-5.6B	
D2501	8-719-911-19	DIODE 1SS119-25	
D2502	8-719-911-19	DIODE 1SS119-25	
D2506	8-719-945-80	DIODE ERC06-15S	
D2507	8-719-945-80	DIODE ERC06-15S	
D2508	8-719-900-26	DIODE ERD29-08J	
D2510	8-719-908-03	DIODE GP08D	
D2511	8-719-908-03	DIODE GP08D	
D2600	8-719-510-53	DIODE D4SB60L	
D2602	8-719-911-19	DIODE 1SS119-25	
D2603	8-719-108-18	THYRISTOR 5P6M	
D2604	8-719-110-08	DIODE RD8.2ESB2	
		<CONNECTOR>	
DY1	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
		<FERRITE BEAD>	
FB600	1-410-397-21	INDUCTOR 1.1UH	
FB601	1-410-397-21	INDUCTOR 1.1UH	
FB602	1-410-397-21	INDUCTOR 1.1UH	
FB603	1-410-397-21	INDUCTOR 1.1UH	
FB604	1-410-397-21	INDUCTOR 1.1UH	
FB605	1-410-397-21	INDUCTOR 1.1UH	
FB607	1-410-397-21	INDUCTOR 1.1UH	
		<IC>	
IC601	8-749-014-01	IC STR-S6708N	
IC602	8-749-920-61	IC SE-135N	
IC603	⚠ 8-749-924-35	PHOTO COUPLER ON3171-R	
IC1501	8-759-980-58	IC TDA8172	
IC1800	8-759-603-37	IC M5216P (J29MF8J)	
IC2504	8-759-145-58	IC uPC4558C	
		<COIL>	
L600	1-410-396-41	INDUCTOR 0.45UH	
L601	1-410-396-41	INDUCTOR 0.45UH	
L605	1-412-527-11	INDUCTOR 15UH	
L606	1-412-527-11	INDUCTOR 15UH	
L607	1-406-978-11	COIL, CHOKE 150UH	
L801	1-459-104-00	COIL, WITH CORE (J29MF8J)	
L802	1-249-437-11	CARBON 47K 5% 1/4W (J25MF8J)	
L802	1-408-947-00	INDUCTOR 2.2mH (J29MF8J)	
L812	1-412-525-31	INDUCTOR 10UH	
L815	1-412-525-31	INDUCTOR 10UH	
L816	1-412-525-31	INDUCTOR 10UH	
L1501	1-412-525-31	INDUCTOR 10UH	
L1502	1-412-525-31	INDUCTOR 10UH	
L1503	1-412-525-31	INDUCTOR 10UH	
L1805	1-459-104-00	COIL, WITH CORE (J29MF8J)	
L1806	1-459-075-11	COIL,DYNAMIC CONVERSION CHOKE (J29MF8J)	
L2504	1-459-390-00	COIL (WITH CORE)	
L2505	1-459-104-00	COIL, WITH CORE	
L2506	1-422-613-11	COIL, AIR CORE	
L2508	⚠ 1-412-551-21	INDUCTOR 1.5mH	
L2509	1-411-955-12	COIL, HORIZONTAL LINEARITY	
L2510	1-459-075-11	COIL,DYNAMIC CONVERSION CHOKE	
		<TRANSISTOR>	
Q600	8-729-028-34	TRANSISTOR 2SD1640Q,R	
Q601	8-729-203-79	TRANSISTOR 2SA1315-Y	
Q602	8-729-140-96	TRANSISTOR 2SD774-34	
Q603	8-729-920-24	TRANSISTOR DTD114ES	
Q803	8-729-200-17	TRANSISTOR 2SA1091-O	
Q1501	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1502	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1503	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1800	8-729-119-76	TRANSISTOR 2SA1175-HFE (J29MF8J)	
Q1802	8-729-119-78	TRANSISTOR 2SC2785-HFE (J29MF8J)	
Q1803	8-729-119-78	TRANSISTOR 2SC2785-HFE (J29MF8J)	
Q1804	8-729-119-78	TRANSISTOR 2SC2785-HFE (J29MF8J)	
Q1805	8-729-195-82	TRANSISTOR 2SC2958-L (J29MF8J)	
Q2502	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q2503	8-729-018-99	TRANSISTOR 2SD2394-F	
Q2591	8-729-016-32	TRANSISTOR 2SC4927-01	
Q2600	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<RESISTOR>	
R601	1-215-923-00	METAL OXIDE 10K 5% 3W F	
R602	1-249-417-11	CARBON 1K 5% 1/4W F	
R603	1-215-901-00	METAL OXIDE 33K 5% 2W F	
R604	1-215-905-11	METAL OXIDE 10 5% 3W F	
R606	1-216-422-11	METAL OXIDE 18 5% 1W F	
R607	1-247-843-11	CARBON 3.3K 5% 1/4W	
R608	1-260-115-11	CARBON 22K 5% 1/2W	
R609	1-260-108-11	CARBON 5.6K 5% 1/2W	

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R611	1-202-933-61	FUSIBLE	0.1	10%	1/2W F
R612	1-249-420-11	CARBON	1.8K	5%	1/4W
R614	1-249-418-11	CARBON	1.2K	5%	1/4W
R615	⚠ 1-249-377-91	CARBON	0.47	5%	1/4W F
R616	1-215-886-11	METAL OXIDE	100	5%	2W F
R618	1-217-191-21	WIREWOUND	0.18	10%	2W F
R619	1-247-807-31	CARBON	100	5%	1/4W
R620	1-249-425-11	CARBON	4.7K	5%	1/4W
R622	1-247-807-31	CARBON	100	5%	1/4W
R624	⚠ 1-533-790-21	LINK, IC			
R625	⚠ 1-533-790-21	LINK, IC			
R628	1-260-072-11	CARBON	4.7	5%	1/2W
R629	1-216-406-11	METAL OXIDE	0.56	5%	5W F
R634	1-247-807-31	CARBON	100	5%	1/4W
R635	1-249-413-11	CARBON	470	5%	1/4W
R690	1-249-416-11	CARBON	820	5%	1/4W
R804	1-217-778-11	FUSIBLE	1K	5%	1W F
R810	1-249-399-11	CARBON	33	5%	1/4W (J29MF8J)
R836	1-215-465-00	METAL	68K	1%	1/4W
R853	1-249-470-11	CARBON	0.47	5%	1/2W F
R854	1-249-470-11	CARBON	0.47	5%	1/2W F
R855	1-202-818-00	SOLID	1K	20%	1/2W
R858	1-215-437-00	METAL	4.7K	1%	1/4W
R860	1-249-438-11	CARBON	56K	5%	1/4W
R861	1-249-438-11	CARBON	56K	5%	1/4W
R868	1-215-451-00	METAL	18K	1%	1/4W (J25MF8J)
R868	1-215-453-00	METAL	22K	1%	1/4W (J29MF8J)
R869	1-215-452-00	METAL	20K	1%	1/4W (J25MF8J)
R869	1-215-453-00	METAL	22K	1%	1/4W (J29MF8J)
R871	1-215-452-00	METAL	20K	1%	1/4W
R876	1-249-421-11	CARBON	2.2K	5%	1/4W F
R884	1-260-199-11	CARBON	200K	5%	1/2W
R885	1-249-470-11	CARBON	0.47	5%	1/2W F
R886	1-216-370-11	METAL OXIDE	1.2	5%	2W F
R887	1-249-420-11	CARBON	1.8K	5%	1/4W F
R890	1-260-125-11	CARBON	150K	5%	1/2W
R892	1-249-425-11	CARBON	4.7K	5%	1/4W
R894	1-215-487-00	METAL	560K	1%	1/4W
R895	1-249-432-11	CARBON	18K	5%	1/4W
R898	1-215-485-00	METAL	470K	1%	1/4W
R1501	1-249-429-11	CARBON	10K	5%	1/4W
R1502	1-249-427-11	CARBON	6.8K	5%	1/4W
R1503	1-249-431-11	CARBON	15K	5%	1/4W
R1504	1-249-425-11	CARBON	4.7K	5%	1/4W
R1506	1-249-435-11	CARBON	33K	5%	1/4W
R1508	1-249-429-11	CARBON	10K	5%	1/4W
R1509	1-215-441-00	METAL	6.8K	1%	1/4W
R1511	1-215-913-11	METAL OXIDE	220	5%	3W F
R1512	1-216-369-00	METAL OXIDE	1	5%	2W F
R1513	1-215-405-00	METAL	220	1%	1/4W
R1514	1-215-453-00	METAL	22K	1%	1/4W
R1515	1-249-383-11	CARBON	1.5	5%	1/4W F
R1516	1-249-426-11	CARBON	5.6K	5%	1/4W
R1517	1-249-426-11	CARBON	5.6K	5%	1/4W
R1518	1-249-425-11	CARBON	4.7K	5%	1/4W
R1519	1-249-431-11	CARBON	15K	5%	1/4W
R1520	1-216-361-00	METAL OXIDE	0.22	5%	2W F
R1523	1-247-807-31	CARBON	100	5%	1/4W
R1524	1-247-863-91	CARBON	22K	5%	1/4W
R1525	1-249-441-11	CARBON	100K	5%	1/4W
R1550	1-249-429-11	CARBON	10K	5%	1/4W
R1551	1-247-843-11	CARBON	3.3K	5%	1/4W
R1800	1-249-417-11	CARBON	1K	5%	1/4W (J29MF8J)
R1801	1-249-426-11	CARBON	5.6K	5%	1/4W (J29MF8J)
R1805	1-249-429-11	CARBON	10K	5%	1/4W (J29MF8J)
R1806	1-249-425-11	CARBON	4.7K	5%	1/4W (J29MF8J)
R1807	1-249-429-11	CARBON	10K	5%	1/4W (J29MF8J)
R1808	1-249-425-11	CARBON	4.7K	5%	1/4W (J29MF8J)
R1809	1-249-435-11	CARBON	33K	5%	1/4W (J29MF8J)
R1810	1-249-435-11	CARBON	33K	5%	1/4W (J29MF8J)
R1811	1-249-435-11	CARBON	33K	5%	1/4W (J29MF8J)
R1812	1-249-435-11	CARBON	33K	5%	1/4W (J29MF8J)
R1814	1-260-111-11	CARBON	10K	5%	1/2W (J29MF8J)
R1815	1-260-111-11	CARBON	10K	5%	1/2W (J29MF8J)
R1816	1-247-843-11	CARBON	3.3K	5%	1/4W (J29MF8J)
R1817	1-249-441-11	CARBON	100K	5%	1/4W (J29MF8J)
R1818	1-249-421-11	CARBON	2.2K	5%	1/4W (J29MF8J)
R1819	1-215-886-11	METAL OXIDE	100	5%	2W F (J29MF8J)
R1820	1-216-434-11	METAL OXIDE	1.8K	5%	1W F (J29MF8J)
R1821	1-249-435-11	CARBON	33K	5%	1/4W (J29MF8J)
R1822	1-249-435-11	CARBON	33K	5%	1/4W (J29MF8J)
R1823	1-249-426-11	CARBON	5.6K	5%	1/4W (J29MF8J)
R1824	1-249-435-11	CARBON	33K	5%	1/4W (J29MF8J)
R1825	1-247-843-11	CARBON	3.3K	5%	1/4W (J29MF8J)
R2501	1-249-385-11	CARBON	2.2	5%	1/4W F
R2503	1-215-910-00	METAL OXIDE	68	5%	3W F (J29MF8J)
R2505	1-249-414-11	CARBON	560	5%	1/4W (J25MF8J)
R2505	1-249-419-11	CARBON	1.5K	5%	1/4W (J29MF8J)
R2506	1-216-473-11	METAL OXIDE	56	5%	3W F (J29MF8J)
R2508	1-249-420-11	CARBON	1.8K	5%	1/4W (J29MF8J)
R2508	1-249-421-11	CARBON	2.2K	5%	1/4W (J25MF8J)
R2510	1-249-421-11	CARBON	2.2K	5%	1/4W
R2512	1-247-887-00	CARBON	220K	5%	1/4W (J29MF8J)
R2512	1-249-438-11	CARBON	56K	5%	1/4W (J25MF8J)
R2515	1-216-341-11	METAL OXIDE	0.22	5%	1W F (J25MF8J)
R2515	1-216-344-00	METAL OXIDE	0.39	5%	1W F (J29MF8J)
R2516	1-249-401-11	CARBON	47	5%	1/4W
R2517	1-216-481-11	METAL OXIDE	1.2K	5%	3W F
R2518	1-215-918-00	METAL OXIDE	1.5K	5%	3W F
R2519	1-247-722-11	CARBON	5.6K	5%	1/4W F (J25MF8J)
R2519	1-249-425-11	CARBON	4.7K	5%	1/4W F (J29MF8J)
R2520	1-247-843-11	CARBON	3.3K	5%	1/4W
R2521	1-249-411-11	CARBON	330	5%	1/4W
R2522	1-216-452-11	METAL OXIDE	180	5%	2W F (J29MF8J)

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

D H3

REF. NO.	PART NO.	DESCRIPTION			REMARK
R2523	1-215-888-00	METAL OXIDE	220	5%	2W F (J29MF8J)
R2527	1-215-861-00	METAL OXIDE	47	5%	1W F
R2528	1-247-750-11	CARBON	680	5%	1/2W F
R2532	1-215-910-00	METAL OXIDE	68	5%	3W F (J25MF8J)
R2533	1-249-389-11	CARBON	4.7	5%	1/4W F
R2536	1-249-422-11	CARBON	2.7K	5%	1/4W (J29MF8J)
R2536	1-249-424-11	CARBON	3.9K	5%	1/4W (J25MF8J)
R2543	1-249-424-11	CARBON	3.9K	5%	1/4W (J25MF8J)
R2543	1-249-425-11	CARBON	4.7K	5%	1/4W (J29MF8J)
R2547	1-130-491-00	MYLAR	0.047MF	5%	50V (J29MF8J)
R2547	1-247-885-00	CARBON	180K	5%	1/4W (J25MF8J)
R2556	1-249-422-11	CARBON	2.7K	5%	1/4W
R2564	1-249-422-11	CARBON	2.7K	5%	1/4W (J25MF8J)
R2580	1-249-438-11	CARBON	56K	5%	1/4W (J25MF8J)
R2580	1-249-440-11	CARBON	82K	5%	1/4W (J29MF8J)
R2582	1-249-413-11	CARBON	470	5%	1/4W
R2601	⚠ 1-218-265-91	METAL	8.2M	5%	1W
R2602	1-249-417-11	CARBON	1K	5%	1/4W
R2604	1-202-962-11	CEMENTED	3.3	5%	10W
R2605	1-249-416-11	CARBON	820	5%	1/4W F
R2606	1-249-416-11	CARBON	820	5%	1/4W F
R2607	1-202-962-11	CEMENTED	3.3	5%	10W
R2608	1-249-437-11	CARBON	47K	5%	1/4W
R2610	1-216-486-00	METAL OXIDE	8.2K	5%	3W F
R2611	1-216-486-00	METAL OXIDE	8.2K	5%	3W F
R2612	1-202-719-00	SOLID	1M	10%	1/2W
		<VARIABLE RESISTOR>			
RV1801	1-223-241-11	RES, ADJ, CARBON 47K (J29MF8J)			
		<RELAY>			
RY2600	⚠ 1-515-684-31	RELAY			
		<SWITCH>			
S2501	1-572-707-11	SWITCH, LEVER (J29MF8J)			
S2502	1-572-707-11	SWITCH, LEVER			
		<TRANSFORMER>			
T601	⚠ 1-429-818-11	TRANSFORMER, CONVERTER			
T801	⚠ 1-453-227-11	TRANSFORMER ASSY, FLYBACK (NX-4002//M3I4) (J25MF8J)			
T801	⚠ 1-453-227-21	TRANSFORMER ASSY, FLYBACK (NX-4002//M3I4) (J29MF8J)			
T804	1-413-059-00	TRANSFORMER, FERRITE (DFT) (J29MF8J)			
T2502	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE			
T2601	1-431-182-11	TRANSFORMER, LINE FILTER			
T2602	⚠ 1-424-505-11	TRANSFORMER, LINE FILTER			
T2603	⚠ 1-424-505-11	TRANSFORMER, LINE FILTER			
		<THERMISTOR>			
THP260	⚠ 1-809-827-11	THERMISTOR, POSITIVE			

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REF. NO.	PART NO.	DESCRIPTION			REMARK
	* A-1372-257-A	H3 BOARD, COMPLETE **********			
	* 4-055-304-01	HOLDER, LED			
		<CAPACITOR>			
C900	1-126-967-11	ELECT	47MF	20%	16V
C901	1-102-824-00	CERAMIC	470PF	5%	50V
C902	1-126-967-11	ELECT	47MF	20%	16V
		<CONNECTOR>			
CN901	1-569-321-11	SOCKET, CONNECTOR 15P			
CN902	* 1-564-507-11	PLUG, CONNECTOR 4P			
CN905	1-569-321-11	SOCKET, CONNECTOR 15P			
CN907	* 1-564-518-11	PLUG, CONNECTOR 3P			
CN908	* 1-564-507-11	PLUG, CONNECTOR 4P			
		<DIODE>			
D904	8-719-045-19	DIODE SPB-26MVWF			
D905	1-247-804-11	CARBON	75	5%	1/4W
D914	8-719-911-19	DIODE 1SS119-25			
D915	8-719-911-19	DIODE 1SS119-25			
D916	8-719-911-19	DIODE 1SS119-25			
D917	8-719-911-19	DIODE 1SS119-25			
		<IC>			
IC900	8-742-041-11	HYB IC SBX1981-11			
		<JACK>			
J901	1-750-264-11	JACK			
J902	1-778-045-11	TERMINAL, S			
J903	1-695-585-11	JACK BLOCK, PIN (L TYPE) 3P			
		<TRANSISTOR>			
Q900	8-729-030-02	TRANSISTOR DTC144ESA			
Q901	8-729-030-02	TRANSISTOR DTC144ESA			
		<RESISTOR>			
R900	1-249-425-11	CARBON	4.7K	5%	1/4W
R901	1-249-425-11	CARBON	4.7K	5%	1/4W
R902	1-249-413-11	CARBON	470	5%	1/4W
R903	1-249-413-11	CARBON	470	5%	1/4W
R904	1-249-417-11	CARBON	1K	5%	1/4W
R905	1-249-417-11	CARBON	1K	5%	1/4W
R906	1-249-420-11	CARBON	1.8K	5%	1/4W
R907	1-249-420-11	CARBON	1.8K	5%	1/4W
R908	1-247-843-11	CARBON	3.3K	5%	1/4W
R909	1-247-843-11	CARBON	3.3K	5%	1/4W
R912	1-249-401-11	CARBON	47	5%	1/4W
R914	1-249-411-11	CARBON	330	5%	1/4W
R915	1-249-411-11	CARBON	330	5%	1/4W
R917	1-247-807-31	CARBON	100	5%	1/4W
R918	1-247-807-31	CARBON	100	5%	1/4W
		<SWITCH>			
S901	1-571-532-21	SWITCH, TACTIL			
S902	1-571-532-21	SWITCH, TACTIL			
S903	1-571-532-21	SWITCH, TACTIL			
S904	1-571-532-21	SWITCH, TACTIL			
S905	1-571-532-21	SWITCH, TACTIL			
S906	1-571-532-21	SWITCH, TACTIL			
S907	1-571-532-21	SWITCH, TACTIL			

H3 S1

REF. NO.	PART NO.	DESCRIPTION			REMARK
S908	1-571-532-21	SWITCH, TACTIL			
S909	1-571-532-21	SWITCH, TACTIL			
S910	1-571-532-21	SWITCH, TACTIL			

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* A-1390-802-A S1 BOARD, COMPLETE
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<CAPACITOR>

C2201	1-126-967-11	ELECT	47MF	20%	16V
C2248	1-164-346-11	CERAMIC CHIP	1MF		16V
C2249	1-164-346-11	CERAMIC CHIP	1MF		16V
C2250	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C2251	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C2252	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C2253	1-126-964-11	ELECT	10MF	20%	50V
C2254	1-126-963-11	ELECT	4.7MF	20%	50V
C2255	1-126-964-11	ELECT	10MF	20%	50V
C2256	1-126-933-11	ELECT	100MF	20%	16V
C2257	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2258	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2259	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2260	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2261	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2262	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2263	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C2264	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C2265	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C2266	1-163-023-00	CERAMIC CHIP	0.015MF	10%	50V
C2267	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2268	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C2269	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C2270	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C2271	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C2272	1-136-171-00	FILM	0.33MF	5%	50V
C2273	1-126-963-11	ELECT	4.7MF	20%	50V
C2274	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C2275	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C2276	1-164-346-11	CERAMIC CHIP	1MF		16V
C2277	1-164-346-11	CERAMIC CHIP	1MF		16V
C2278	1-164-346-11	CERAMIC CHIP	1MF		16V
C2280	1-126-933-11	ELECT	100MF	20%	16V
C2281	1-126-964-11	ELECT	10MF	20%	50V
C2282	1-164-346-11	CERAMIC CHIP	1MF		16V
C2283	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C2284	1-136-171-00	FILM	0.33MF	5%	50V
C2285	1-126-963-11	ELECT	4.7MF	20%	50V
C2286	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C2287	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C2288	1-164-346-11	CERAMIC CHIP	1MF		16V
C2289	1-164-346-11	CERAMIC CHIP	1MF		16V
C2290	1-126-933-11	ELECT	100MF	20%	16V
C2291	1-164-346-11	CERAMIC CHIP	1MF		16V
C2292	1-126-964-11	ELECT	10MF	20%	50V
C2293	1-164-346-11	CERAMIC CHIP	1MF		16V

<CONNECTOR>

CN2201	* 1-770-748-11	CONNECTOR, BOARD TO BOARD 12P	
CN2202	* 1-778-959-11	CONNECTOR,BOARD TO BOARD 6P	

<DIODE>

D2203	8-719-911-19	DIODE 1SS119-25	
D2204	8-719-911-19	DIODE 1SS119-25	
D2205	8-719-911-19	DIODE 1SS119-25	
D2206	8-719-911-19	DIODE 1SS119-25	
D2207	8-719-911-19	DIODE 1SS119-25	

<IC>

IC2201	8-752-058-68	IC CXA1315M	
IC2211	8-759-009-06	IC MC14052BF	
IC2212	8-759-493-92	IC NJM2178M-T2	
IC2213	8-759-100-96	IC uPC4558G2	
IC2214	8-759-100-96	IC uPC4558G2	

<CHIP CONDUCTOR>

JR2201	1-216-295-91	SHORT	0
JR2202	1-216-295-91	SHORT	0
JR2205	1-216-295-91	SHORT	0
JR2206	1-216-295-91	SHORT	0
JR2207	1-216-295-91	SHORT	0
JR2208	1-216-295-91	SHORT	0

<TRANSISTOR>

Q2201	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L
Q2202	8-729-230-49	TRANSISTOR 2SC2712-YG-TE85L
Q2203	8-729-224-61	TRANSISTOR 2SK246-Y
Q2204	8-729-224-61	TRANSISTOR 2SK246-Y

<RESISTOR>

R2202	1-216-073-00	RES, CHIP 10K
R2203	1-216-073-00	RES, CHIP 10K
R2204	1-216-025-91	RES, CHIP 100
R2205	1-216-025-91	RES, CHIP 100
R2209	1-216-073-00	RES, CHIP 10K
R2212	1-216-075-00	RES, CHIP 12K
R2217	1-216-101-00	RES, CHIP 150K
R2218	1-216-101-00	RES, CHIP 150K
R2221	1-216-025-91	RES, CHIP 100
R2222	1-216-025-91	RES, CHIP 100
R2224	1-216-073-00	RES, CHIP 10K
R2225	1-216-073-00	RES, CHIP 10K
R2226	1-216-049-91	RES, CHIP 1.0K
R2227	1-216-098-00	RES, CHIP 110K
R2228	1-216-089-91	RES, CHIP 47K
R2229	1-216-085-00	RES, CHIP 33K
R2230	1-216-063-91	RES, CHIP 3.9K
R2231	1-216-053-00	RES, CHIP 1.5K
R2232	1-216-064-00	RES, CHIP 4.3K
R2233	1-216-092-00	RES, CHIP 62K
R2234	1-216-069-00	RES, CHIP 6.8K
R2235	1-216-057-00	RES, CHIP 2.2K
R2236	1-216-049-91	RES, CHIP 1.0K
R2237	1-216-069-00	RES, CHIP 6.8K
R2238	1-216-057-00	RES, CHIP 2.2K
R2239	1-216-049-91	RES, CHIP 1.0K
R2240	1-216-073-00	RES, CHIP 10K
R2241	1-216-097-91	RES, CHIP 100K
R2242	1-216-073-00	RES, CHIP 10K
R2243	1-216-097-91	RES, CHIP 100K
R2244	1-216-073-00	RES, CHIP 10K
R2245	1-216-097-91	RES, CHIP 100K
R2246	1-216-073-00	RES, CHIP 10K
R2247	1-216-039-00	RES, CHIP 390
R2248	1-216-069-00	RES, CHIP 6.8K
R2249	1-216-061-00	RES, CHIP 3.3K
R2250	1-216-097-91	RES, CHIP 100K
R2251	1-216-113-00	RES, CHIP 470K
R2252	1-216-075-00	RES, CHIP 12K
R2253	1-216-097-91	RES, CHIP 100K

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION	REMARK
R2254	1-216-097-91	RES, CHIP 100K	
R2255	1-216-073-00	RES, CHIP 10K	
R2256	1-216-073-00	RES, CHIP 10K	
R2257	1-216-075-00	RES, CHIP 12K	
R2258	1-216-113-00	RES, CHIP 470K	
R2259	1-216-097-91	RES, CHIP 100K	
R2260	1-216-039-00	RES, CHIP 390	
R2261	1-216-061-00	RES, CHIP 3.3K	
R2262	1-216-069-00	RES, CHIP 6.8K	
R2264	1-216-097-91	RES, CHIP 100K	
R2265	1-216-073-00	RES, CHIP 10K	
R2266	1-216-121-91	RES, CHIP 1.0M	
R2267	1-216-121-91	RES, CHIP 1.0M	
R2268	1-216-075-00	RES, CHIP 12K	
R2269	1-216-073-00	RES, CHIP 10K	
R2270	1-216-121-91	RES, CHIP 1.0M	
R2271	1-216-121-91	RES, CHIP 1.0M	
R2272	1-216-097-91	RES, CHIP 100K	
R2276	1-216-097-91	RES, CHIP 100K	
R2279	1-216-073-00	RES, CHIP 10K	
R2280	1-216-073-00	RES, CHIP 10K	
R2282	1-216-097-91	RES, CHIP 100K	
R2283	1-216-073-00	RES, CHIP 10K	
R2284	1-216-077-00	RES, CHIP 15K	
R2285	1-216-065-00	RES, CHIP 4.7K	
R2289	1-216-081-00	RES, CHIP 22K	
R2290	1-216-081-00	RES, CHIP 22K	

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REF. NO.	PART NO.	DESCRIPTION	REMARK
		MISCELLANEOUS	
		**********	
	⚠ 1-403-619-51	COIL, DEMAGNETIZATION (J25MF8J)	
	⚠ 1-403-672-12	COIL, DEMAGNETIZATION (J29MF8J)	
	1-452-032-00	MAGNET,DISK ; 10mmø	
	1-452-278-22	MAGNET, PURITY (J29MF8J)	
	1-452-278-32	MAGNET, PURITY (J29MF8J)	
	⚠ 1-452-762-21	NECK ASSEMBLY NA294 (J25MF8J)	
	⚠ 1-452-762-31	NECK ASSEMBLY NA294 (J29MF8J)	
	1-505-489-11	SPEAKER (5CM) (J29MF8J)	
	1-505-503-11	SPEAKER (15X6.5CM)	
	1-569-008-11	ADAPTOR, CONVERSION 2P	
	⚠ 1-574-062-12	CORD, POWER (WITH CONNECTOR) 2.5A/250V	
	1-777-353-11	CABLE, FLAT	
	⚠ 8-451-404-41	DEFLECTION YOKE (Y25GXAS) (J25MF8J)	
	⚠ 8-451-467-21	DEFLECTION YOKE (Y29GXA2-S) (J29MF8J)	
	⚠ 8-733-244-05	PICTURE TUBE (M60KWL70X) (J25MF8J)	
	⚠ 8-733-868-05	PICTURE TUBE (M68KZT71X) (J29MF8J)	

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		ACCESSORIES AND PACKING MATERIALS	
		**********	
-			
	1-569-008-11	ADAPTOR, CONVERSION 2P	
	3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)	
	3-861-496-91	MANUAL, INSTRUCTION	
	4-054-319-01	TRAY	
	4-054-320-01	CUSHION (UPPER) (ASSY) (J29MF8J)	
	4-054-321-01	CUSHION (LOWER) (ASSY) (J29MF8J)	
	4-056-142-01	CUSHION (UPPER) (ASSY) (J25MF8J)	
	4-056-143-01	CUSHION (LOWER) (ASSY) (J25MF8J)	
	4-392-003-01	BAND, HOLD	
	4-392-004-01	CLIP	
*	4-058-652-01	INDIVIDUAL CARTON (J29MF8J)	
*	4-058-660-01	INDIVIDUAL CARTON (J25MF8J)	
*	4-388-135-01	BAG, PROTECTION	
*	4-396-077-01	JOINT (J29MF8J)	
		REMOTE COMMANDER	
		**********	
	1-473-980-21	REMOTE COMMANDER (RM-873)	
	9-902-546-01	POCKET, COVER (FOR RM-873)	